



## PA Industrial Resource Centers Program Overview

**Serving Manufacturers Since 1988**

June 17, 2009



## The Industry We Serve

- State of Manufacturing<sup>1</sup>
  - "Most Significant Industry"
  - 15% of gross state product
  - 94% of PA exports are manufactured products
  - Productivity growing 50% faster than the national average
  - 658,000 manufacturing employees
  - \$50,336 in average wages
- Additional Characteristics
  - Approximately 16,000 manufacturers; 60% have less than 20 employees
  - 83% family owned or privately held
  - 67% of CEOs are age 51 and older

<sup>1</sup> "Manufacturing in Pennsylvania", 2008 Industry Report

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## The PA Industrial Resource Centers

- Dedicated to serving manufacturers since 1988
- Returned \$1.24 in state tax revenue for every dollar invested<sup>1</sup>
- Provide consulting and training, utilizing industry best practices
- 501(c)3 private non-for-profit corporations, employing app. 160 people
- Utilize third party consultants to augment capacity and capability
- Receive funding from PA Industrial Resource Center (IRC) program and federal Manufacturing Extension Partnership (MEP) program
- Have improved the performance of more than 8,000 PA manufacturing firms with over 25,000 engagements

<sup>1</sup> Nexus Study, 1999: Economic gains driven by IRC work return at least \$1.24 to the state treasury and \$22 in Gross State Product for every \$1.00 the state invests in the IRC program.



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## Industrial Resource Center Beneficiaries

- Small manufacturers that improve performance and competitiveness
- Small manufacturers in rural regions with limited access to resources
- Employees of small firms who have more secure and rewarding jobs
- Large Pennsylvania manufacturers that utilize regional suppliers
- Pennsylvania communities that have enhanced tax bases
- State government which receives revenues above program costs
- State and Federal agencies such as Economic Development, Environmental Protection, Education, Labor and Industry, and Defense, with missions related to U.S. manufacturing



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## The PA Industrial Resource Centers



**NWIR**

**NEPIRC**

**MRC**

**MANTEC**

**Catalyst Connection**

**IMC**

**DVIRC**



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## Our Results: Fiscal Year 2008- 2009

- **The Industrial Resource Centers:**
  - Met with approximately 4,000 companies to assess needs and provide resources
  - Completed 1058 projects with 714 companies
  - Leveraged state funding to secure federal and client revenues to support regional economic growth
- **Impact reported by Clients to NIST in 2008-2009<sup>1</sup>:**
  - Created or retained 5,959 jobs
  - Increased or retained sales of \$800M
  - Saved \$133M
  - Invested \$192M into their plants

<sup>1</sup> Based on an independent survey of manufacturers, conduct by NIST MEP

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## Services Provided

- Operational Excellence
  - Lean Manufacturing
  - Six Sigma
  - Quality Assurance and Improvement (including ISO9000)
  - Production Planning and Inventory Control
- Business Growth (launched with additional funding in 2004)
  - Strategy Development
  - Market and Sales Development
  - Product Development
- Other Business Assistance
  - Business Planning and Financing
  - Human Resources and Workforce Development
  - Training, Seminars and Workshops



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## Our Feet on the Street



The IRCs offer Pennsylvania manufacturers support for growth through a statewide network of dedicated, experienced professionals from seven regional centers as well as support from a 24/7 web system.



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## Our Leadership Team

### 100 Years of Industrial Resource Center Experience



Back Row: Bill Desciak, NEPIRC; John Lloyd, MANTEC; Chet Kempinski, NWIRC  
 Front Row: Jack Pfunder, MRC; Jim Shillenn, IMC; Eric Esoda, NEPIRC; Petra Mitchell, Catalyst Connection  
 Not Pictured: Joe Houldin, DVIRC and Barry Miller, DVIRC



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## Our Funding History

Fiscal Year	State Appropriated Funds (Millions)	% Change
1988-01	\$10,200	
2001-02	\$11,203	9.8%
2002-03	\$11,203	0.0%
2003-04	\$10,200	-9.0%
2004-05	\$15,200	49.0%
2005-06	\$15,200	0.0%
2006-07	\$15,200	0.0%
2007-08	\$15,200	0.0%
2008-09*	\$15,149	-0.3%
2009-10**	\$11,508	-24.0%
2009-10***	\$5,754	-62.0%

\* Budgetary Reserve - \$ 1.049 million / -6.49% (\$14.1 million)

\*\* Governor's Proposed Budget

\*\*\* Senate Proposed Budget



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## Assisting Manufacturers: Surviving Tough Times... ...Preparing for Growth

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## "Survival Tips for Managing During an Economic Downturn"<sup>1</sup>

- Increase the frequency of contact with customers
- Be aggressive in seeking new business
- Keep service and quality standards high
- Do not reduce advertising and promotional expenditures
- Carefully manage inventories
- Eliminate nonessential expenses
- Do not cut back on training

<sup>1</sup> Co-written by Partners for Small Business Excellence and  
the US Small Business Administration

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## The Industrial helping Manuf.

- Find new customers th optimization
- Reduce costs with lear
- Reduce utility costs thr assessments
- Take advantage of R&I
- Gain access to credit th
- Sell services to US Arn

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## US Army ARDEC Defense Initiative

- ARDEC partnership with IRCs to add suppliers for prototyping
- Successful demonstration of a single-point of contact supply chain model
- Quantifiable Results in 2008 - 2009:
  - Over \$800K in ARDEC orders placed with Pennsylvania SMEs
  - 200 qualified PA suppliers committed to ARDEC standards
  - ARDEC opportunities offered exclusively to 122 PA SMEs
  - Purchase orders issued to 22 PA SMEs
  - Technical assistance in DoD contracting provided to 28 SMEs
  - 3 days, or less, turnaround time on RFQs
- ARDEC and SMEs continue to be actively engaged
- Proposal to expand to \$10M of PO's placed in PA
  - Endorsed by ARDEC

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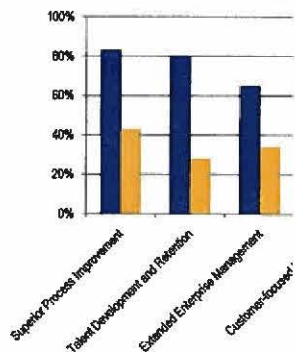
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## Preparing for Growth: Manufacturing



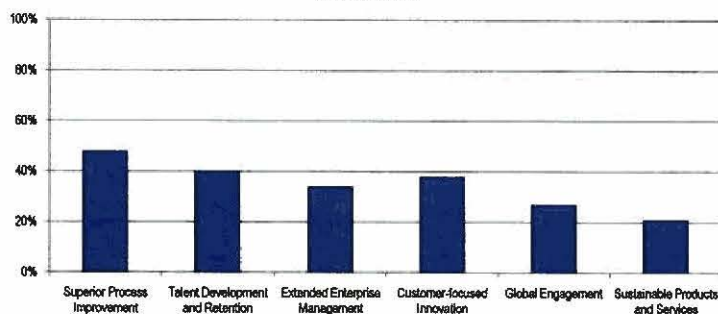
<sup>1</sup> Based on an independent survey of manufacturing executives in cooperation with the Manufacturing Institute

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## Preparing for Growth: How Helpful are State Resources?

% of Respondents Rating Full or Good Support from State Resources



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## Superior Process

**Record annual productivity  
competition, through**

- Important: 83%; Good
- Full or Good Support from
- The Industrial Resources  
lean manufacturing and
- Additional resources needed  
and more companies

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## Talent Acquisition, Development and Retention

**Secure a competitive performance advantage by having superior systems in place  
to recruit, hire and develop employees**

- Important: 80%; Good or World Class Progress: 28%
- Full or Good Support from State: 40%
- PA Manufacturers having an aging population of workers that will need to be replaced by highly skilled technology workers
- The future requires a greater focus on improving the *quantity* of potential workers through career awareness and exploration; and the *quality* of potential workers through involvement of business leaders in educational programs and a greater focus on STEM (science technology, engineering and math)

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## Extended Enterprise Management

**Develop and manage a network of suppliers and partners that beats the competition by providing greater flexibility, faster response times and lower costs**

- Important: 65%; Good or World Class Progress: 34%
- Full or Good Support from State: 34%
- The PA IRCs have partnered with OEMs (Harley Davidson, BAE Systems, Respirationics) to implement improvement initiatives with key suppliers
- This strategy must be expanded to smaller firms
- Discussions in process with Gamesa and Marcellus Shale to build PA based energy supply chains



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## Customer Focused Innovation

**Develop, make and market new customer solutions at a pace faster than the competition**

- Important: 59%; Good or World Class Progress: 46%
- Full or Good Support from State: 38%
- PA IRCs Business Growth Services (launched in 2004) support clients in finding new customers and improving sales from new products
- One Industrial Resource Center, MRC, has been piloting "Technology Scouting" to demonstrate role of new technology in manufacturing
- Financial support is needed:
  - Small amount, loans and grants to support soft costs associated with new product development



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## Global Engagement

**Secure business advantages by having people, partnerships, and systems in place capable of engaging global markets and talents better than the competition**

- Important: 47%; Good or World Class Progress: 32%
- Full or Good Support from State: 27%
- The PA Industrial Resource Centers have partnered with the Regional Export Networks to provide access to state resources for exporting

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## Sustainable Products and Services

**Design and implement waste and energy-use reductions at a level that provides superior cost performance and recognizable customer value**

- Important: 32%; Good or World Class Progress: 18%
- Full or Good Support from State: 21%
- PA Industrial Resource Centers are launching "Lean and Green" services, energy audits and sustainability practices
- Green Products and Sustainability may be the most important strategy during the next 3-7 years and beyond
- Additional funding for outreach, awareness and education is required to support these initiatives

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## Summary of Manufacturer's Needs

- Expansion of lean manufacturing to all areas of business
- Availability of training for incumbent workers and access to highly skilled technology workers for the future
- Opportunity to participate in new supply chains, such as alternative energy and defense
- Small amount, loans and grants to support soft costs associate with new product development
- International contacts for exporting strategies
- Information on green product opportunities and new regulations associated with sustainability policies

Access to Expertise

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## Presentation Summary

- Manufacturing remains our most significant industry
- The IRCs are a proven program with 20 years experience
- Our work creates jobs and grows businesses
- Return on state investment has been demonstrated
  - As businesses grow, add or retain employees – more taxes are paid
- Surviving and thriving in a global economy will require strategy, knowledge, resources and execution
- The continuation of a modest state investment (\$15.2M) is necessary to maintain and grow this industry and our economy

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## For Further Information

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### IRC Network

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# Next Generation Manufacturing

## Pennsylvania Manufacturers Assess Progress on Strategies Required for Future Success

### Next Generation Manufacturing (NGM) Strategies Survey

The Pennsylvania Industrial Resource Centers (IRCs) recently surveyed Pennsylvania manufacturers to learn more about how they view the future, especially the strategies necessary for manufacturing success in the next five years. The survey, done in cooperation with the Manufacturing Performance Institute (MPI), a leading national survey research firm focused on manufacturing, addressed six next generation manufacturing strategies:

- Customer-focused Innovation
- Talent Development and Retention
- Superior Process Improvement
- Extended Enterprise Management
- Sustainable Products and Processes
- Global Engagement

### Survey Findings

The survey provides valuable perspective for Pennsylvania manufacturers, the IRCs, economic development organizations, and state leaders who invest public resources to grow the Commonwealth. ***The most fundamental conclusion is that Pennsylvania manufacturers think the six strategies matter.*** High percentages of the respondent firms rated five of the six strategies important to their success in the next five years:

- Superior Process Improvement 83%
- Talent Acquisition, Development and Retention 80%
- Extended Enterprise Management 65%
- Customer-focused Innovation 59%
- Global Engagement 47%

A third (32%) rated Sustainable Products and Processes important to their future success, a percentage that will rise in the future in response to public policy and social commitment.

All Pennsylvanians can be encouraged by the progress reported by many firms as they work to implement the NGM strategies:

- Nearly one-fifth (19%) of firms working on customer-focused innovation report that at least one-quarter of sales come from products less than three years old. New products are critical to sales growth and added employment;
- Because they value their employees and invest in talent development, 28% of firms report annual value-added per employee above \$125,000;
- For nearly half the firms (49%), steady pursuit of superior process improvement has won strong customer loyalty to their products due to ongoing trust in the organization's people and capabilities;
- In the era of global sourcing and daunting expectations within supply chains, 25% of firms already involve both their customers and their suppliers in discussions of their operations, continuous improvement efforts, and product development;
- As the marketplace greens, nearly one-quarter (23%) of firms report that at least 90% of their products are completely reusable or recyclable; and
- In the global economy, one-quarter (26%) of firms have grown the dollar volume of their sales beyond the United States by at least 26%.

Pennsylvania manufacturers are working hard to position themselves for future success. Their success will be crucial to the economic future of our Commonwealth. Leading firms have achieved world-class performance and can serve as models for many more that will make this journey during the next five years. Their steady progress will create and sustain good family-wage jobs across every region of Pennsylvania, stabilize regional economies, and help the Commonwealth return to fiscal health. The Industrial Resource Centers are dedicated to this future.