

Needs Assessment and Business Plan for an Advanced Manufacturing Institute

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Dauch CMME

The Future of Manufacturing





Background

Manufacturing in Indiana

- Most dense in nation
- Lost >100,000 jobs

The State

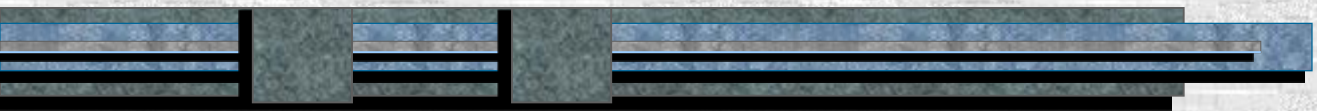
- Energize Indiana
- Advanced Manufacturing Initiative

Purdue

- What do companies want?
- How can we help?

CICP

- Battelle Study
 - Advanced manufacturing is a cluster





Advanced Manufacturing Summit

CICP/Purdue Sponsored

Listened to Industry

> 300 attended

Want attention/action





Advanced Manufacturing Institute Study

CICP Sponsorship

Completed June, 2002

- Reviewed state of manufacturing
 - Workforce data trends
 - Held focus groups with industry
 - Summit survey analyses
- Categorized resources for Indiana companies
 - Put on web

www.purdue.edu/AMAP

- Benchmarked research institutes
- 



Advanced Manufacturing is:

- Making technologically advanced products
- Using technologically advanced processes
- Making technologically advanced products with technologically advanced processes.





Conclusions from Study

Manufacturing is of continuing importance to state but in major transition and at risk

- Indiana must support advanced manufacturing part of its economy

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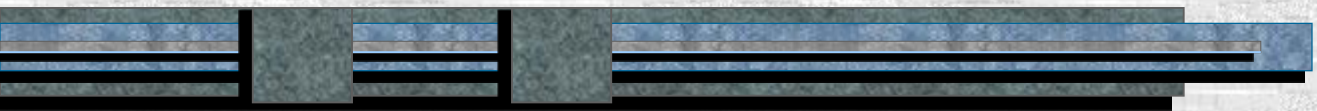


Conclusions from Study *- continued*

To enhance competitiveness of Indiana companies

- Strengthen productivity
- Transfer technology
- Applied research
- Develop problem solving capacity
- Enhance worker skills

An Advanced Manufacturing Institute (AMI) is needed to provide the applied research that the state and nation require.





AMI Assumptions

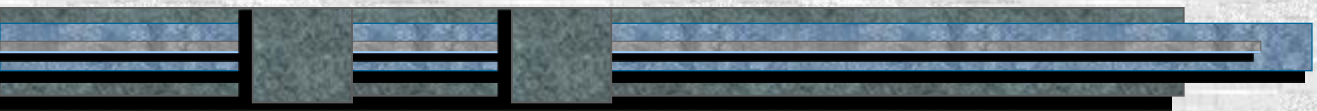
Independent but affiliated with Purdue

Must reach \$30 M per year

- Critical mass

Will require about 75% federal funding

25% funds from industry sponsored research





AMI Sustainability Study

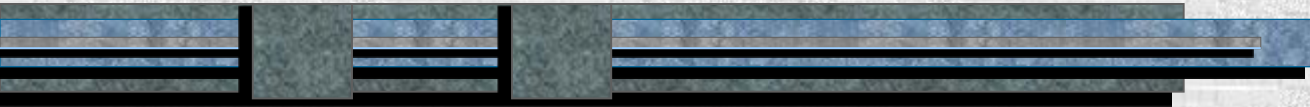
New Technology Programs (emerging technologies) supported by Congress and Federal Agencies

- Which ones
- Level of support
- Support applied research/process development

Indiana Companies (key industries)

- Will they partner to create
- What type of research problems
- Will they use for research

Develop detailed business plan

- Organization
 - Financial resources to start
 - Financial resources to reach sustainability
- 

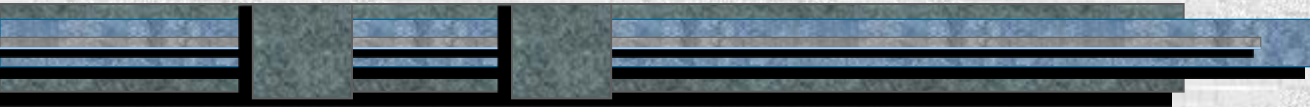


Results

Washington Study

- Manufacturing research alone will not provide sustainability
- Emerging Technologies
- Needs
 - Homeland Security Product Development
 - Classified research
- Strong marketing will be needed

Companies

- >80 interviewed
 - Essentially all support concept
 - Essentially all will help
 - Large percentage can visualize use
 - Research needs are very broad
 - Proprietary research is important
- 



Business Plan

- Detailed analysis completed
 - Revenue forecast/costs
 - People needs
 - Structure
 - Collaboration models with Purdue University, Indiana University, Notre Dame, Rose Hulman, Ball State University, etc.

Broad Support

- Companies
 - Industry
 - NAM
 - IMA
 - Government
 - Labor
- 