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WHERE DISCOVERIES BEGIN

CICI IAB Meeting

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National Science Foundation

Welcome to the Industry / University Cooperative Research Centers

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I/UCRC: Mission and Vision

Mission:

- **To contribute to the nation's research infrastructure base by developing long-term partnerships among industry, academe and government**
- **To leverage NSF funds with industry to support graduate students performing industrially relevant research**

Vision:

- **To expand the innovation capacity of our nation's competitive workforce through partnerships between industries and universities**

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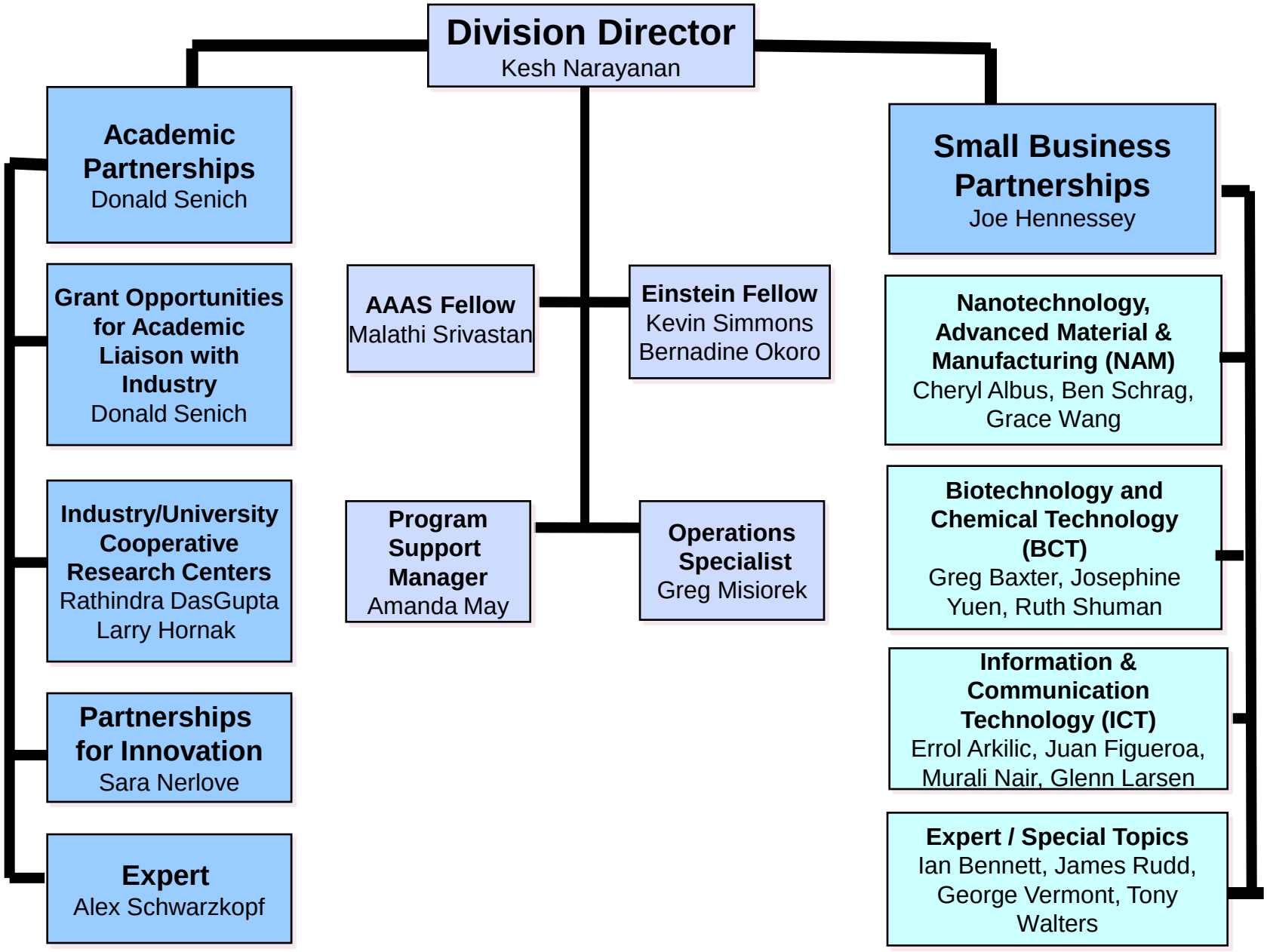
Industrial Innovation and Partnerships



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What does an I/UCRC offer?

Outcomes from a truly cooperatively defined, shared portfolio of precompetitive research

- **Industry driven R&D projects**
- **Leveraging relatively small investment to reap far greater return via consortium-style research center**
- **Interaction with other key players in industry, peers and customers**
- **Access to intellectual property (patents in use)**
- **Access to pre-publication technical papers**
- **Access to world class facilities and researchers**
- **Access to students (students hired)**
- **Transfer of research results to serve industry (impact assessment)**

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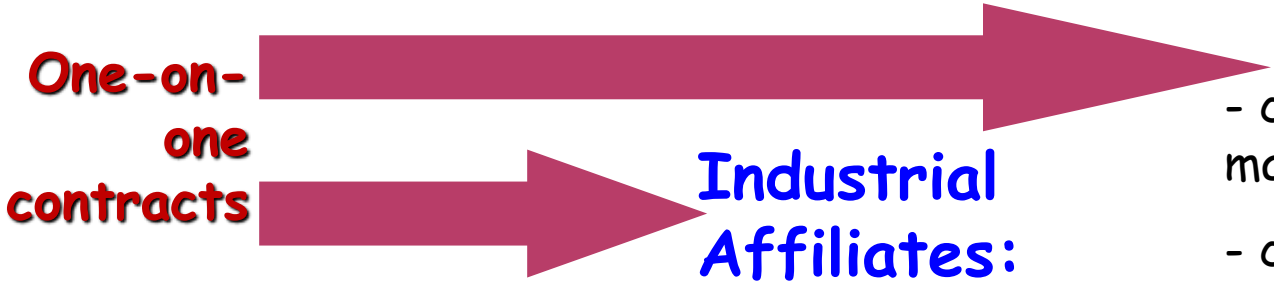
Trust the IUCRC Model

- IUCRC model moves away from a one-on-one contracts



IUCRC:

- collective decision-making
- collective ownership

Industrial Affiliates:

-one-on-one decision-making

- collective ownership

Disadvantages of Affiliates Model:

- sub-critical mass projects
- no sense of community
- value << sum of projects

Advantages of the IUCRC Model:

- Conversation validates shared community needs
- Portfolio shaped, direction aligned with member needs
- Value across the portfolio Value >> sum of projects

Much more than collective ownership: *Collective Value*

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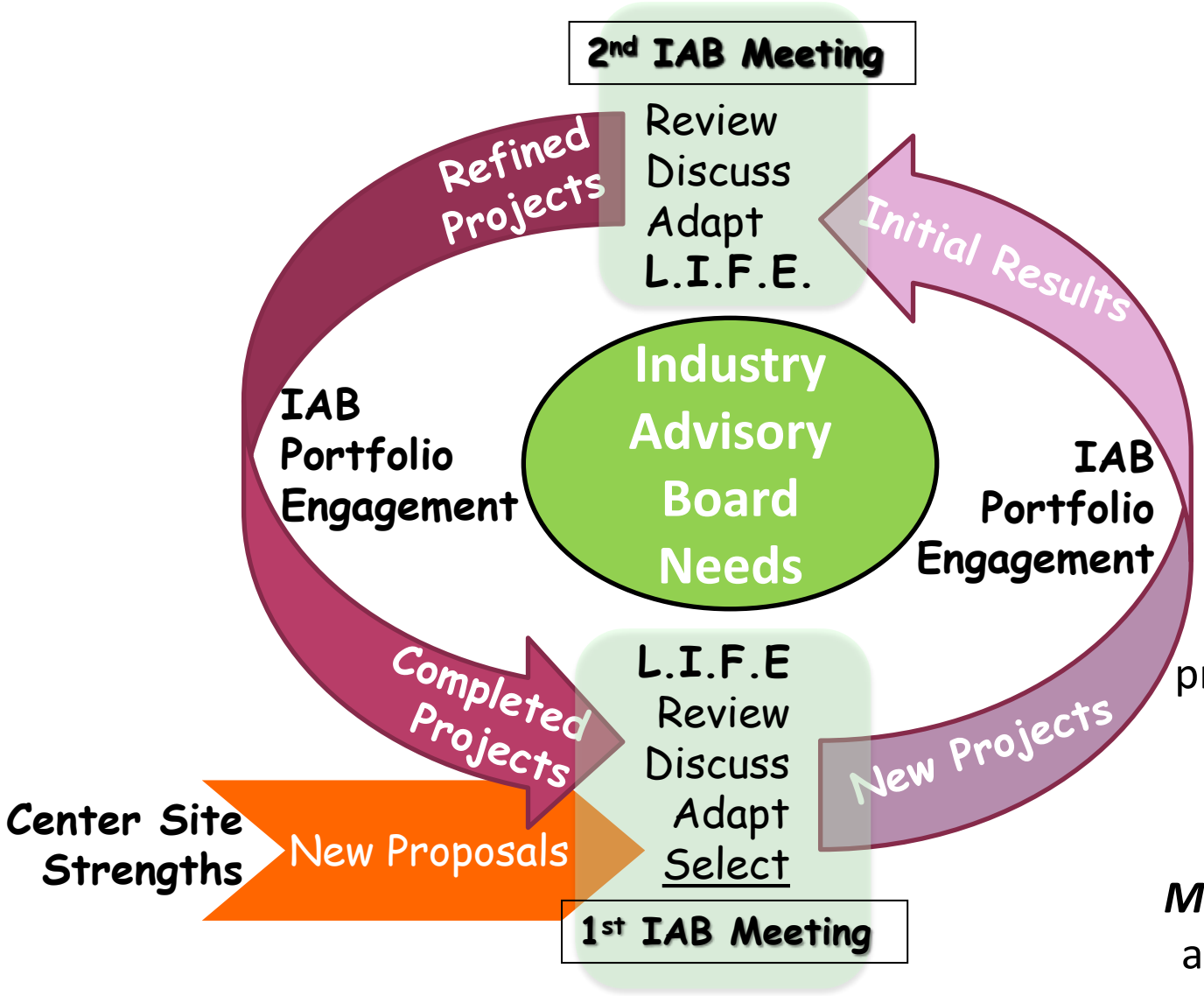
Priming the IUCRC Shared Portfolio



The co-operative process rapidly aligns the Shared Portfolio with ***Member Needs*** and ***University strengths***

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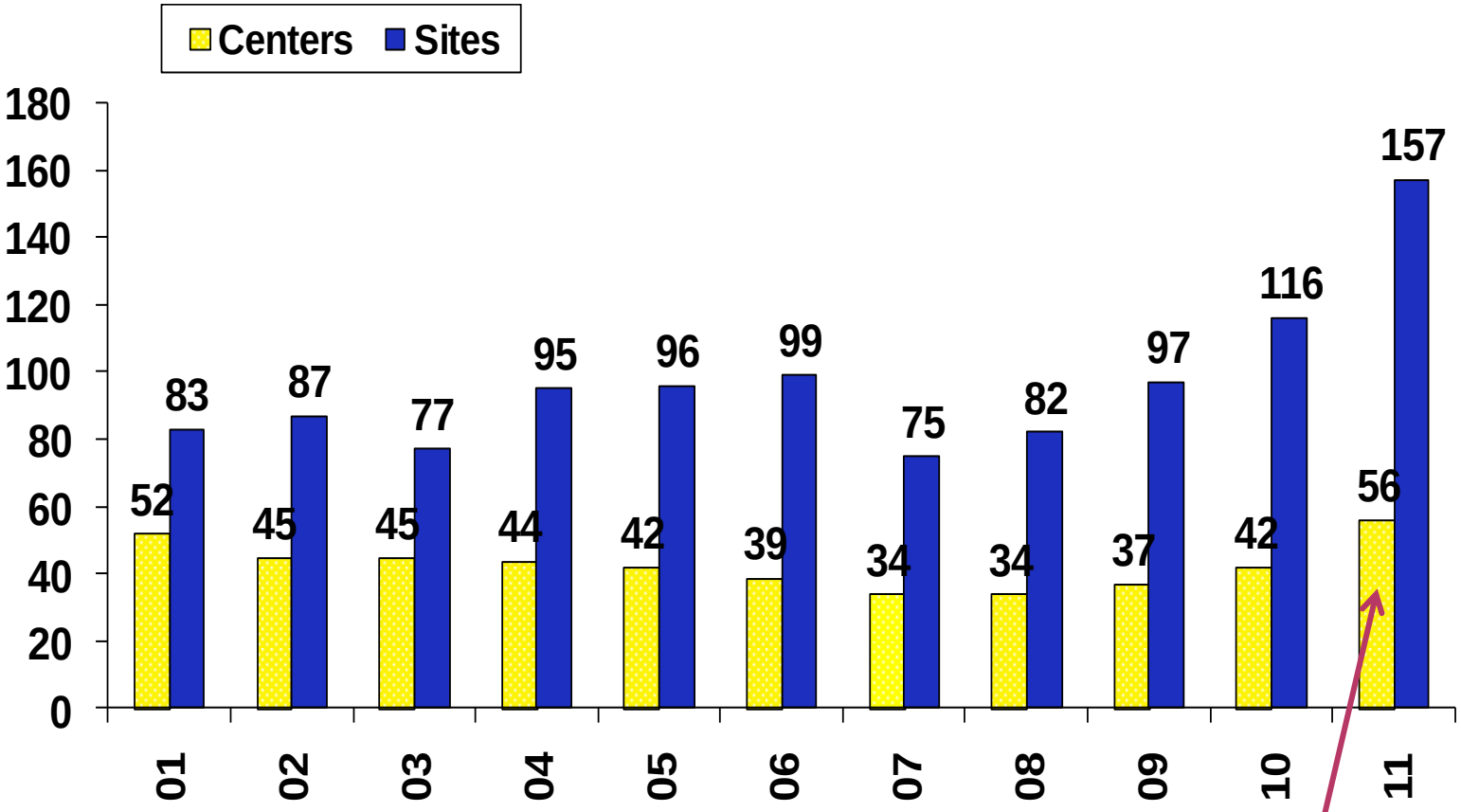
Active Centers and Sites by Year



INCREASE IN CENTERS AND SITES;
Active centers include 5 Phase III

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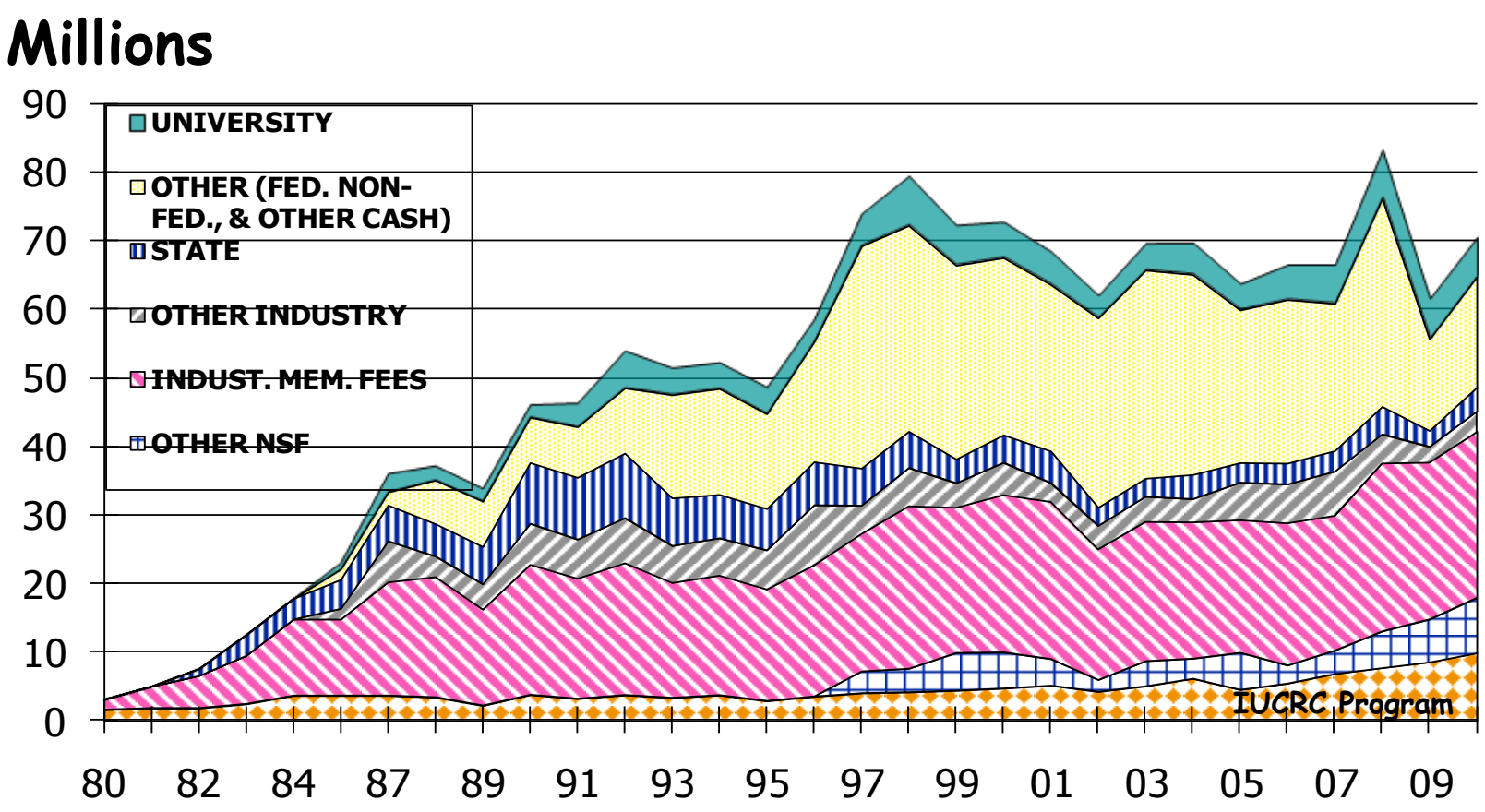
TOTAL FUNDING BY SOURCE BY YEAR IN DOLLARS



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Industry/University Cooperative Research Centers

ENG Multi-University Centers

1. *Advanced Forestry*
2. Advanced Packaging and Processing (III)
3. Bio Energy R & D
4. Composites Infrastructure
5. Ceramics Composites Optical Materials Center
6. Computational Materials Design
7. Design of Analog Digital Integrated Circuits (III)
8. Dielectrics
9. Electromagnetic Compatibility
10. Energy Harvesting
11. Friction Stir Processing
12. Fuel Cells
13. Grid-Connected Adv Power Elec
14. Health Org. & Transformation
15. Integrative Joining of Materials for Energy Applications
16. Laser and Plasma for Adv. Mfg.
17. *Logistics and Distribution*
18. Membrane Science, Engineering & Technology
19. Minimally Invasive Diagnostics

ENG Multi -University Centers

20. Next Generation Photovoltaics
21. Particulate and Surfactants
22. Pharmaceutical Development
23. Plug-In Hybrid Electric Vehicles
24. Precision Forming
25. *Power Systems Engineering Research Center (III)*
26. Resource Recovery & Recycling
27. Smart Vehicles Concepts
28. Silicon Solar
29. Small Satellite Technology
30. Connection One
31. Water and Environmental Technology
32. Water and Equipment Policy
33. Wood Based Composites
34. Metamaterials
35. Agricultural, Biomedical, and Pharmaceutical Nanotechnology

ENG Single-University Centers

36. Advanced Cutting Tools
37. Advanced Vehicle Electronics (III)
38. Biomolecular Interaction
39. Child Injury Studies
40. Electronic Micro-Cooling
41. Non-Destructive Evaluation (III)

41 ACTIVE ENG CENTERS

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Industry/University Cooperative Research Centers

CISE Multi-University Centers

1. **Advanced Knowledge Enablement**
2. ***Autonomic Computing***
3. ***e-Design***
4. **Embedded Systems**
5. **Experimental Computer Systems**
6. **Hybrid Multicore Productivity**
7. **Identification**
8. **Intelligent Maintenance**
9. **Intelligent Storage**
10. **Net-Centrics Systems**
11. ***Reconfigurable Computers***
12. **Search & Rescue Robots**
13. **Security and Software Engineering Research Center**
14. **Surveillance Theory**
15. ***Wireless Internet***

15 ACTIVE CISE CENTERS

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Other Funding Opportunities for CICI IUCRC

- CORBI Projects – Between I/UCRC Centers (NSF matching!)
- Fundamental Research (Industry Defined)
- Research Experience for Undergraduate Students (REU)
- Research Experience for Teachers (RET)
- Federal Government Interagency Exchange of Funds
- International Collaboration/Projects
- Supplemental Opportunity for SBIR/STTR Memberships

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CICI Status

- **All sites awarded with ARRA FUNDS**
- **The ARRA funds, for each institution, include ONE REU ($8,000 per student per year)**
- **Annual reports due April 1, 2011**
- **Each site will update status via on-line (DIMS) effective March 1, 2011.**

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Note: The best way to contact us is via e-mail. Many are on the road frequently