Industry/University Cooperative Research Centers (I/UCRC)

Evaluator Conference

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Program Director, I/UCRC
June 3, 2009
Presentation Outline

• Center Status
  ➢ Number of Centers as of today
  ➢ Full proposals under consideration
  ➢ Planning grant proposals under consideration

• Revised Solicitation (09-565)
  ➢ How it differs from the rest

• Supplemental Funding & Expectations

• Evaluator Studies

• ARRA
  ➢ What is new?
## Industry/University Cooperative Research Centers

### ENG Multi-University Centers

1. Advanced Forestry  
2. Computational Materials Design  
3. Dielectrics  
4. Friction STIR Processing  
5. Fuel Cells  
7. Logistics and Distribution  
8. Membranes  
9. Minimally Invasive Diagnostics  
10. Precision Forming  
11. Repair of Building and Bridges  
12. Smart Vehicles Concepts  
13. Water and Environmental Technology  
14. Telecommunications  
15. Silicon Solar  
16. Particulate and Surfactants  
17. Advanced Cutting Tools  
18. Health Organization & Transformationinable  
19. Iron & Steel  
20. Small Satellite Technology  
21. Bioenergy  
22. Electromagnetic Compatibility

### CISE Multi-University Centers

1. Cyber Protection  
2. e-Design  
3. Experimental Computer Systems  
4. Identification  
5. Intelligent Maintenance  
6. Reconfigurable Computers  
7. Search & Rescue Robots  
8. Wireless Internet  
9. Autonomic Computing  
10. Embedded Systems  
11. Net-Centrics Systems

### Single University Centers

1. Advanced Vehicle Electronics  
2. Bio-catalysis and Bio-processing of Macromolecules  
3. Biomolecular Interaction  
4. Electronic Micro-Cooling  
5. Child Injury Studies  
6. Advanced Knowledge Enablement (CISE)

39 Centers before Panel in May, 2009
Full ENG Proposals for Centers Under Consideration (FY 2009)

- **Friction Stir Processing** (lead is SDSM&T)
  - Phase II Renewal for 3 sites

- **Laser and Plasma for Adv.Mfg** (lead is UVA)
  - Phase II Renewal for one site

- **Connection One** (lead is ASU)
  - Phase II Renewal for one site

- **Multiphase Transport Phenomena** (lead is MSU)
  - One year Renewal for 2 sites

- **Laser and Plasma for Adv. Mfg** (lead is UVA)
  - Addition of one site will result in 4 sites for this Center

- **Electromagnetic Compatibility** (lead is MST)
  - Addition of one site will result in 3 sites for this Center

- **Advanced Forestry Systems** (lead is NCSU)
  - Addition of one site will result in 8 sites for this Center

- **Grid-Connected Advanced Power Electronic Systems** (2 sites)

- **Integration of Composites into Infrastructure** (4 sites)

Potential for 3 more!!
Full CISE Proposals for Centers Under Consideration (FY 2009)

- Safety, Security & Rescue Research (Lead is UVA)
  - Phase II Renewal for one site
  - Addition of one site

- WICAT (lead is Polytech)
  - Phase II Renewal for one site

- CERCS (lead is Georgia Tech)
  - Phase II Renewal for one site

- E-Design (lead is Virginia Tech)
  - Phase II Renewal for 1 site

- CAKE (lead is FIU)
  - Addition of one site will result in 2 sites for this Center

- Hybrid Multicore Productivity Research (3 sites)

- Intelligent Storage (2 sites)

Potential for 2 more!!
IUCRC Planning Grants Under Consideration

- Wind Energy (3 sites)
- Water Equipment & Policy (2 sites)
- Metamaterials (4 sites)
- Integrative Materials Joining Science for Energy Applications (4 sites)
- Ceramic Composite and Optical Materials (2 sites)
- Agricultural and Pharmaceutical Nanotechnology (2 sites)
- Surveillance Theory (2 sites; CISE)
- Dynamic Data Analysis (2 sites; CISE)
- Mississippi State University (CISE; planning grant awarded to join CAC)
- Arizona State University (CISE; planning grant to join Net–Centrics Systems)
- Drexel University (CISE; planning grant awarded to partner with the University of Louisiana; Visual Decision Informatics)

Potential for 8 New Centers
### Differences amongst Solicitations (YRS 1 – 5)

<table>
<thead>
<tr>
<th>Features</th>
<th>01-116</th>
<th>07-537</th>
<th>08-591</th>
<th>09-565</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership/site</td>
<td>$150k (3)</td>
<td>5 members</td>
<td>$150k (3)</td>
<td>$150k (3)</td>
</tr>
<tr>
<td>Membership/center</td>
<td>$300k</td>
<td>10 members</td>
<td>$300k$^1_\text{1},\text{1}</td>
<td>$300k$^1_\text{1},\text{1}</td>
</tr>
<tr>
<td>Funding opportunities (YRS)</td>
<td>1 - 10</td>
<td>1 - 10</td>
<td>1 - 10</td>
<td>YRS 11 through 15 now available</td>
</tr>
<tr>
<td>NSF funding</td>
<td>$50k – $70k²</td>
<td>$50k – $70k²</td>
<td>$55k – $80k²</td>
<td>$55k – $80k²</td>
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<tr>
<td>In-kind support from industry</td>
<td>NA</td>
<td>NA</td>
<td>RESTRICTED</td>
<td>RESTRICTED</td>
</tr>
<tr>
<td>Evaluator support for planning grants</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Added ($3k)</td>
</tr>
<tr>
<td>Evaluator support for established Centers</td>
<td>Included in award</td>
<td>Added (up to $21k)</td>
<td>Added (up to $21k)</td>
<td>Added (up to $21k)$^3</td>
</tr>
</tbody>
</table>

1. $350k for Phase II and Phase III Centers; minimum of $175k per site
   * Membership count defined
2. $25k - $35k for Phase II under 01-116 & 07-537; $28 - $40k for Phase II under 08-591; $40K - $60k for Phase II under 09-565; $15k for Phase III
3. $4K for Phase III; Added

PLEASE READ SOLICITATION FOR MORE DETAIL
## Differences amongst Solicitations (YRS 1 – 5)

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</tr>
</thead>
<tbody>
<tr>
<td>Evaluator participation at IAB</td>
<td>Yes (bi-annually)</td>
<td>Yes (bi-annually)</td>
<td>Yes (bi-annually)</td>
<td>Yes (bi-annually for Phases I,II; annually for III)</td>
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<tr>
<td>Cost sharing</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Additional support for lead institution</td>
<td>$10k/site for I &amp; II</td>
<td>$10k/site for I &amp; II</td>
<td>$10k/site for I &amp; II</td>
<td>$10K/site for I &amp; II; $25k for Phase III</td>
</tr>
<tr>
<td>International Collaboration &amp; support</td>
<td>No</td>
<td>No</td>
<td>Yes ($25k)</td>
<td>Yes ($25k)</td>
</tr>
<tr>
<td>Added Center Director support (&gt;8 sites)</td>
<td>No</td>
<td>No</td>
<td>Yes ($50k)</td>
<td>Yes (varies)</td>
</tr>
</tbody>
</table>

Please read solicitation for more detail.
Supplemental Funding & Expectations

• **TIE Project**
  - Deliverables & Milestones to be clearly spelled out
  - IAB approval letter must accompany proposals
  - Revisions underway (DCL)

• **Fundamental Research Supplement**
  - May have to be submitted as a full proposal
  - Revisions underway

• **SBIR membership in I/UCRC**
  - Revisions underway
Evaluator Studies

- DVD & Compendium – in progress

- Assessing the Post-Graduation Status of I/UCRCs: An Assessment of Self-Sufficiency and Indirect Impacts of Sustained I/UCRCs – awarded

- Impact of I/UCRC Directorship on Career Paths and Achievement – under review

- I/UCRC Project Team Size, Disciplinary Diversity & Effectiveness – under consideration at NSF