SERC to $S^2$ERC Timeline

- Software Engineering Research Center (SERC) began in 1986, headquartered at Purdue University and University of Florida
- Headquarters transferred to Ball State University in 2001
- SERC became self supporting in 2004
- NSF proposal to become the $S^2$ERC (BSU and ISU) in 2009
- NSF funds the $S^2$ERC February 2010
- Virginia Tech, 3rd NSF-funded site, 2011
- Georgetown University, 4th NSF-funded site 2014
- Loyola University, in planning stages to join the $S^2$ERC
The mission of the Security and Software Engineering Research Center is to conduct a program of applied and basic research on software security, system security and software technology problems of interest to its members. The goal of this research is to enable security and software technology gains within member organizations.
S²ERC Today

• 4 member and 9 partner universities
• Over 25 affiliate members from both government and industry
• Over 40 faculty researchers + many grad/ungrad students
• Over 20 funded research projects
• Upcoming 10th S²ERC Showcase at BSU, November 12-13, 2014
NSF Funded Member Universities and Staff

- Ball State
  - Wayne Zage, Director
  - Richard Sartiano, Managing Director
  - Dolores Zage, Research Coordinator
  - Rachel Spudic, Center Coordinator
- Iowa State
  - Joseph Zambreno, Co-Director
  - Raj Aggarwal, Program Advisor
  - Ginny Anderson, Program Assistant
- Virginia Tech
  - Charles Clancy, Co-Director
  - Christine Callsen, Site Coordinator
- Georgetown University
  - Eric Burger, Co-Director
$S^2$ERC Affiliates
$S^2$ERC Participating Universities

- Ball State University
- IPFW
- Purdue University
- IUPUI
- Georgetown University
- Penn State
- Iowa State University
- UIC
- University of Limerick
- Virginia Tech
- Virginia Polytechnic Institute and State University
- James Madison University
- DePaul University
S²ERC Researchers

- NSF Career Award winners
- Schwarzkopf Prize for Technological Innovation recipients
- Numerous editorial appointments
- Distinguished professors and conference best paper award winners
- Conference program chairs
- ACM and IEEE Fellows
- Patent holders
### Active Centers and Sites By Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Centers</th>
<th>Sites</th>
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<tbody>
<tr>
<td>2002</td>
<td>45</td>
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<td>53</td>
<td>159</td>
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<tr>
<td>2012</td>
<td>59</td>
<td>172</td>
</tr>
</tbody>
</table>

*Over 760 Members (2010 Survey)*

43 ENG (124 SITES) & 16 CISE (48 SITES);
INCLUDES PHASE III & NCE CENTERS
I/UCRC Nucleus: A Cooperatively Defined, Funded & Shared Research Portfolio

- **Shared Precompetitive Project Portfolio**
  - Cooperatively defined, selected
  - Governed by NSF I/UCRC Agreement

- **Industry Advisory Board**
  - Pooled Member $’s

- **Value derived from portfolio**
  - Addresses precompetitive needs shared by IAB
  - Leverages & builds university strengths

- **OH investment**
  - Center, Sites Universities
The IUCRC Research Portfolio Cycle

- Biannual IAB Meeting
  - Review
  - Discuss
  - Adapt
  - L.I.F.E.

- Industry Advisory Board
  - Needs
  - Select
  - New
  - Projects
  - Completed
  - Refined
  - Projects

- Initial Results
- New Projects
- Center Site Strengths
- Biannual IAB Meeting
  - Member Needs and University strengths
  - The cooperative process rapidly aligns the Center’s Portfolio with...
What **value** does an I/UCRC offer?

Outcomes from a cooperatively defined and managed, shared portfolio of precompetitive research.

- Industry driven research projects
- Investment leveraging via cooperative
- Networking with industry peers and customers
- Access to intellectual property
- Pre-publication access to research
- World class researchers & facilities
- Access to students

- New research and education program dimensions
- Leveraging of POC results from IUCRC projects
- Trusted relationships with industry
- Ready partners for translation of discoveries
- Student recruitment, retention and placement
- Means to achieve institutional mission and meet constituency expectations.
How Does S²ERC Work?

Industrial Requests for Proposals (IRFPs)

Research Proposals (solicited, unsolicited)

Feedback

Industry/Gov

Funds $

Universities

Research Results
S²ERC Financials

- Support for the S²ERC in its fifth year: $1,831,515 (a 38% increase since Fall 2013 Showcase)
  - $555,782 from NSF for S²ERC admin at 4 funded university sites, managing director, and other supplemental awards
  - $890,676 in affiliation fees
  - University support: $385,057
For More Information

visit www.serc.net

or contact

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