Research & Grad Programs - Status & Strategies

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SCHOOL OF ENGINEERING AND TECHNOLOGY

A PURDUE UNIVERSITY SCHOOL

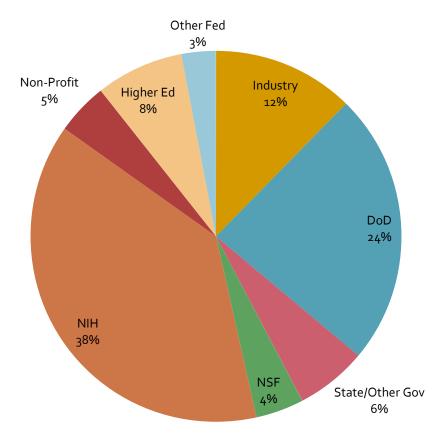
Indianapolis

FY 2011 Research Events & Highlights

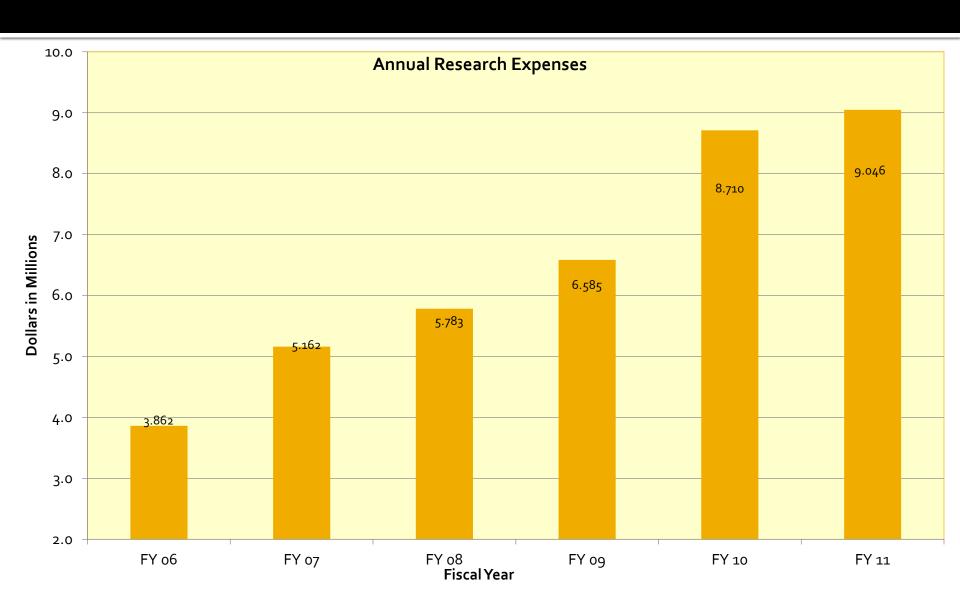
- E&T Contracts & Grants awarded: \$9.95 M in FY 2011.
 - 2nd highest total annual awards in history
- Transportation Active Safety Institute (TASI) received IUPUI Signature Center status
- Lugar Center for Renewable Energy (LCRE) Director selected
- Biomechanics & Biomaterials Research Center (BBRC)
 Director deceased
- Science & Engineering Laboratory Building (SELB) preliminary design completed; space is very tight now

FY 2011 C&G Awards by Sponsor

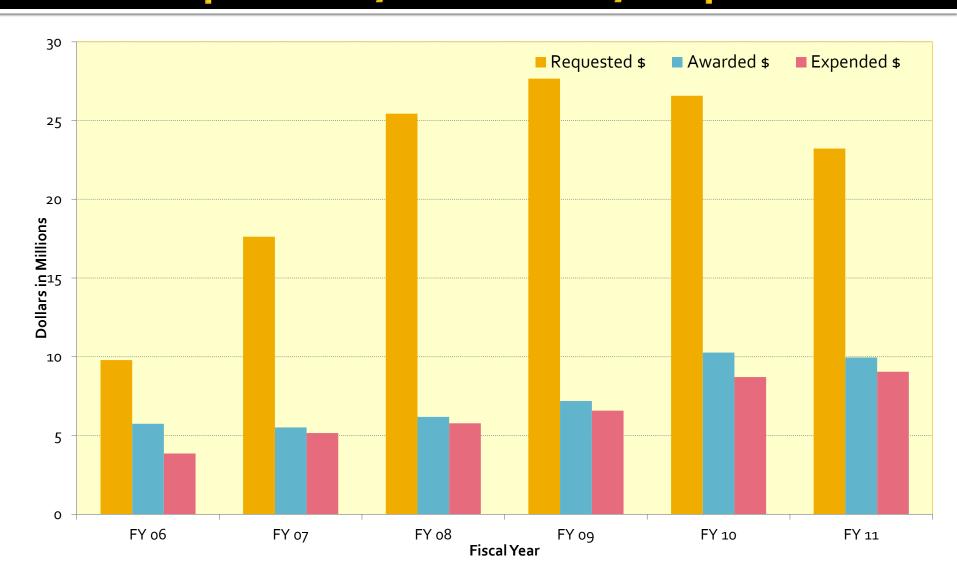




2006-2011 C&G Expenditures \$



FY 2011 C&G: \$\$ Requested, Awarded, Expended



FY 12 school policy changes incentivizing research

- Credit sharing in multi-investigator projects
- ICR recovery shared with PI's, departments, centers (10% to each)
- Faculty salary savings (less replacement cost) return to discretionary, department accounts
- PI research incentive pay (proposed)

Research Focus Areas & Strategic Relationships

Local Industry

Automotive

Aerospace

Defense

Battery

Pharma

Medical

National Labs

Argonne

Crane

Wright-Pat

NREL

NETL

CDC

TACOM/TARDEC

Biomechanics & Biomaterials

Cardiovascular Modeling & Tissue Engineering

Transportation Safety

Renewable Energy & Efficiency

Nanotechnology & Materials

Sensors & Imaging

Spectrum & Data-centric
Defense

STEM Education

Indiana State Priorities / CICP Initiatives

Bio-Crossroads

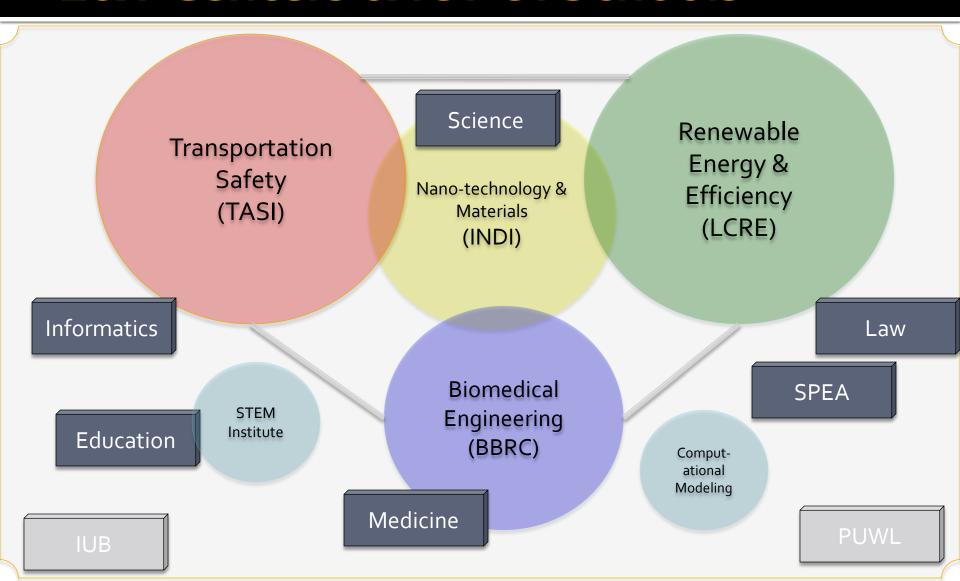
Conexus

Techpoint

Energy Systems Network

I-STEM / PLTW

Research Collaborations: E&T Centers & IUPUI Schools



Potential new niches

- Automotive systems integration
- Embedded systems
- Smart grids / micro-grid integration
- Sustainable battery lifecycle
- Waste-to-energy

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Research Communication & Recognition

- Professional recognition, publications
- Research awards and achievements to media
- Industry-faculty interaction
- Monthly faculty research forum
- IUPUI research collaborations
- Outreach to national labs

Graduate Students 2010-11

- Grad headcount: 244 MS, 21 PhD in Fall '10
- Graduated 72 MS (19 thesis), 7 PhD

MS Enrollment	2002	2003	2004	2005	2006	2007	2008	2009	2010
ВМЕ	11	11	11	15	15	11	13	15	18
ECE	59	68	69	74	66	54	45	71	51
ME	46	41	32	41	45	43	45	62	48
Tech	0	0	0	0	17	28	46	52	76
Music	26	29	21	31	34	48	48	51	51
Total	142	149	133	161	177	184	197	251	244

Graduate Student Support

- Graduate student support (fellowships, research, teaching assistantships) over \$½M
- Research-outcome-based process for IUPUI graduate support allocation
- Departmental base budget for grad support
- Better strategy for IUPUI funding application

Graduate Programs Reorganization

- Purdue transferred MS administration to IUPUI
- Departments 'take over' students after admission – study plans, advising, degree audit
- School focus on recruitment, admissions, strategy-driving and quality data, Purdue/IU grad school interactions
- Negotiated favorable fees for Purdue PhD thesis credits and on-line Engineering Pro Ed (EPE)

Graduate programs strategies

- Expand grad student support
- Grow PhD enrollments and upgrade programs: more courses, exams, credits at IUPUI
- Professional Masters (non-thesis) with industry input, boost completion
- Quality improvement in all programs and incoming students

Thank you!