

Joint Board of Advisors Meeting

Dean's Report
Purdue School of Engineering and
Technology, IUPUI

September 23, 2011
IUPUI Campus Center

- News
 - Recent “big wins”
 - Recent accreditation action
 - Enrollment update

- Strategic planning
 - Overview of process
 - Highlights of representative initiatives and accomplishments
 - Next steps

- Toyota's Collaborative Safety Research Center awards E&T's Transportation Active Safety Institute (TASI) \$2.5M to develop testing protocols for automotive pre-collision systems



- Other awards to: MIT, Virginia Tech, Wake Forest School of Medicine, and Wayne State School of Medicine

- Department of Energy selects E&T to receive a \$1.3M award to train students to become industrial energy efficiency experts

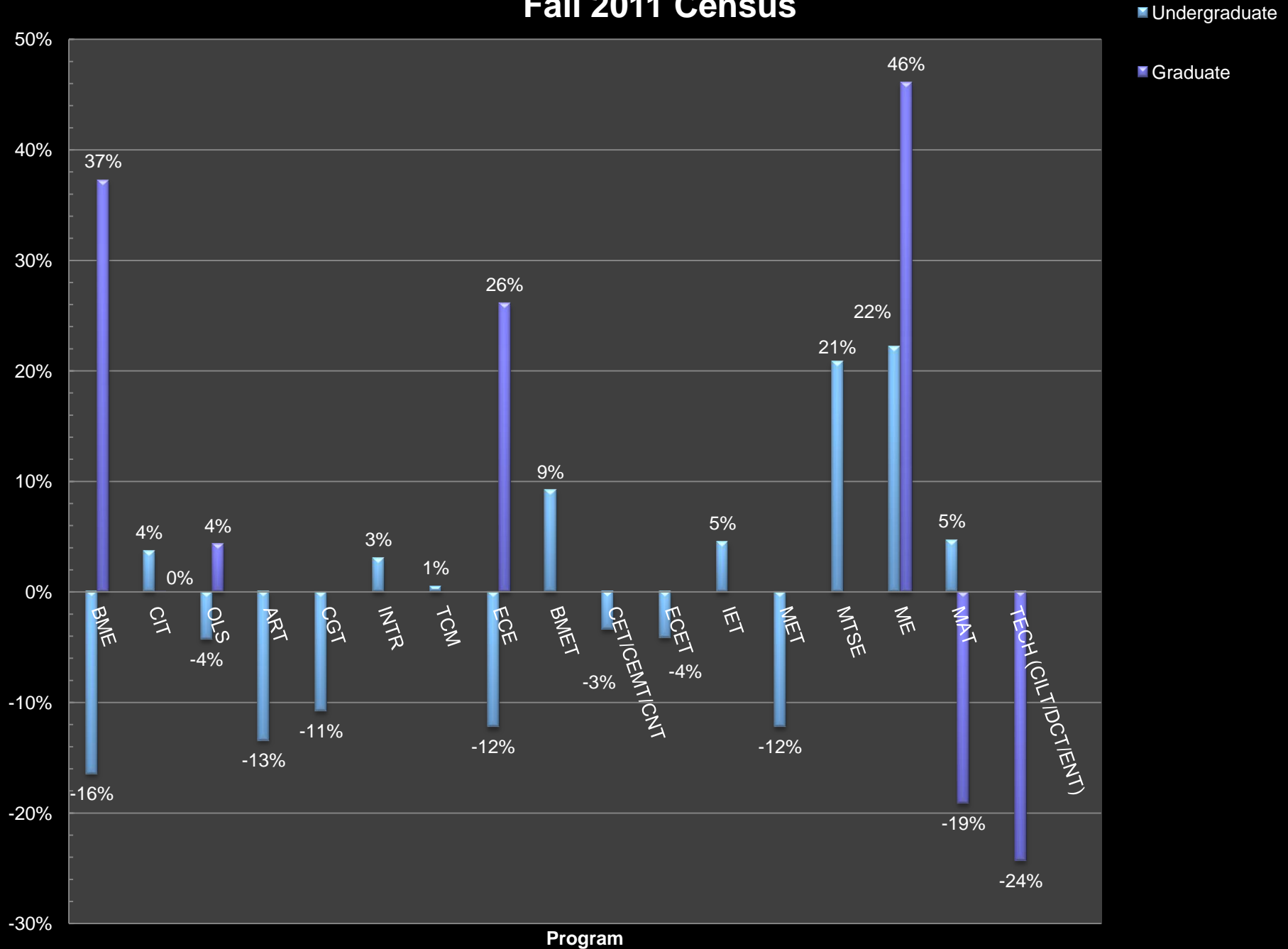


- Students will conduct energy assessments in a broad range of facilities while helping regional companies reduce energy consumption and emissions, save money, and become more economically competitive
- E&T was one of 24 awards and the only Indiana proposal to be selected

- B.S. degree in Biomedical Engineering received notification from the Engineering Accreditation Commission of ABET, Inc. that ***inaugural accreditation*** was approved retroactively from October 1, 2008
- B.S. degrees in Computer Engineering, Electrical Engineering, and Mechanical Engineering received ***continued accreditation*** from ABET, Inc.
- The Department of Music and Arts Technology and all of its programs received ***inaugural accreditation*** from the National Association of Schools of Music

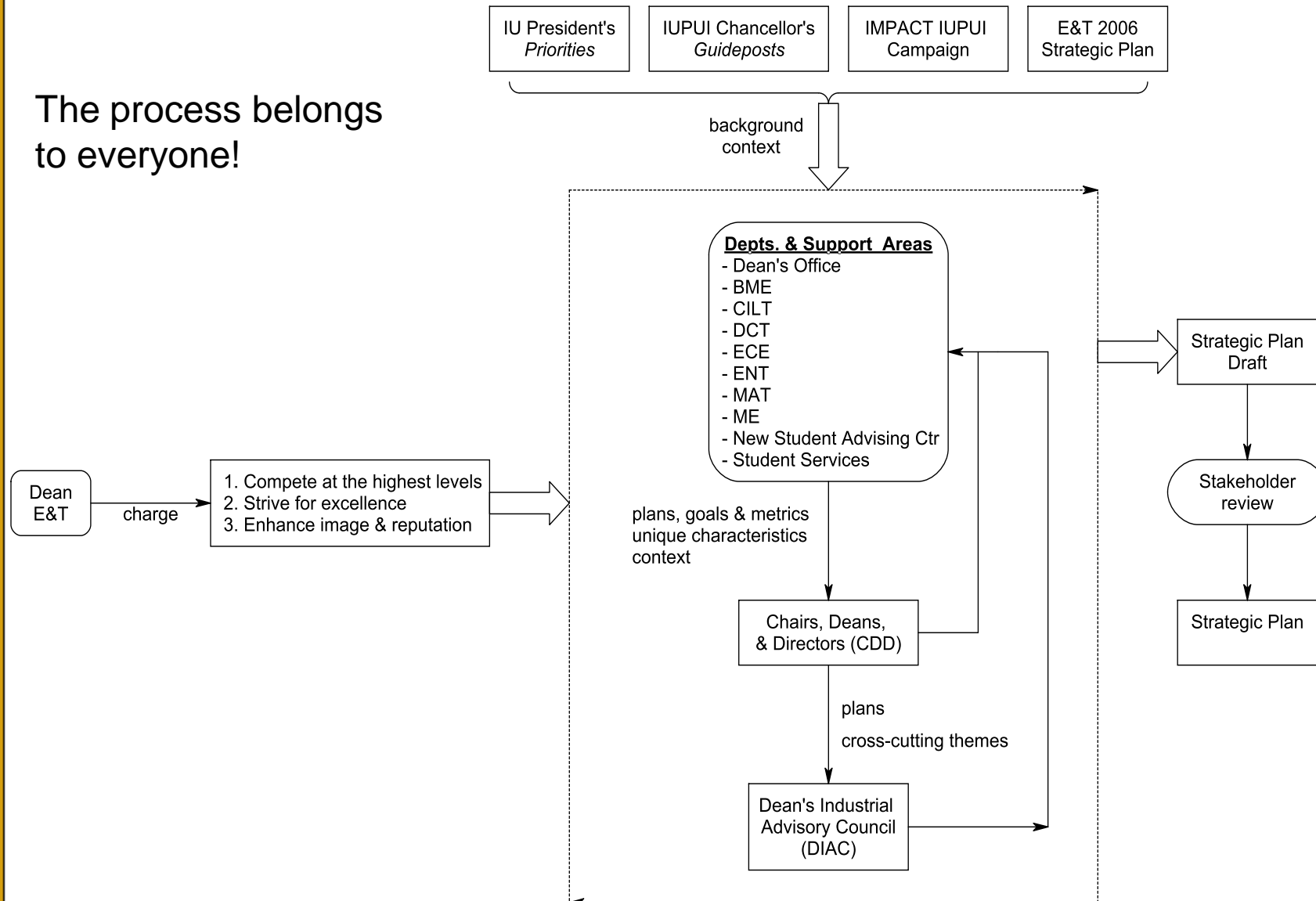


Engineering and Technology Fall 2011 Census



Strategic Planning Process

The process belongs
to everyone!



1. Compete at the Highest Levels

- **Initiative:** Attract, retain, and reward excellent *faculty and staff*
 - Offer salaries and start-up packages that are **competitive** with aspirational *peers*
 - Create incentives and rewards to encourage **sustained contributions** and teamwork
 - Establish professorships and increase the number of **endowed** chairs of excellence

1. Compete at the Highest Levels

- **Accomplishments in Year One**

- Hired and/or retained several outstanding faculty and staff
 - Peter Schubert, director of the Lugar Center
 - John Mainella, assistant dean for development and external relations
 - Hiroki Yokota, professor of BME, returned from RPI
 - many others ...
- Implemented targeted salary merit increases
- Implemented Indirect Cost Recovery (ICR) policy
 - 10% Investigators (PI and Co-PIs), 10% Department, 10% Center

1. Compete at the Highest Levels

- **Accomplishments in Year One**

- Implemented shared credit process and tracking
 - PI and Co-PIs agree on shared credit before proposal submission
 - shared credit will be used to allocate ICR distribution among investigators and to track 'credit' for annual expenditures
- Returned salary savings from grants/contracts
 - salary returned to PI's discretionary account
 - benefits returned to department
- Proposed a research incentive plan

1. Compete at the Highest Levels

- **Initiative:** Attract, retain, and graduate better prepared and more diverse *students*
 - Increase E&T students in the IUPUI Honors College
 - Develop degree-specific honors programs that include an *entrepreneurial experience* and culminate in an undergraduate thesis
 - Increase capacity and support for *graduate programs*, while reducing structural and financial impediments to the Ph.D.
 - Integrate **diversity initiatives** from K-12 through Ph.D. students to faculty hires
 - Increase scholarships, particularly endowed gifts that make a long-term and *systemic impact*

1. Compete at the Highest Levels

● **Accomplishments** in Year One

- Executed an agreement with AUC (Clark Atlanta University, Morehouse College, and Spelman College) to provide '3+2' opportunities for students from these HBCUs to pursue B.S. degrees in E&T select disciplines
- Reached an agreement in principle with Marion University for a "3+2" engineering program
- Improved process with PUWL whereby IUPUI graduate assistants receive a non-resident fee waiver for those classes taken at PUWL
- Expanded the charge of the diversity council to integrate and leverage initiatives from K-12 through Ph.D. student recruitment to underrepresented prospective faculty cultivation

2. Strive for Excellence

- **Initiative:** Excel in teaching, research, and service
 - Enhance our ***quality educational programs***, as evidenced by external accreditation and feedback from stakeholders
 - Increase ***faculty fellows*** and senior members of *professional societies*
 - Increase number of faculty with ***leadership positions***, including journal editors and international conference chairs, and professional society officers
 - Enhance ***fiscal stewardship and effectiveness*** in program investments, resource allocation, and infrastructure development

2. Strive for Excellence

- **Accomplishments in Year One**

- Budgeted reoccurring expenses in the departmental and/or program base budgets to provide more transparency
- Increased departmental base budgets while reducing discretionary funds at the School level
- Increased Technology graduate instructional fee rate to the Engineering rate and reinvested the revenue in the Technology departments' graduate assistant line item
- E&T editorship appointments:
 - Editorial Board of the Journal of Nanomedicine and Biotherapeutic Discovery
 - Editorial Board of Frontiers in Neuroengineering
 - Encyclopedia of Systems Biology

2. Strive for Excellence

- **Initiative:** Excel in teaching, research, and service (cont.)
 - Form, renew, and enhance ***productive partnerships*** that add value to the School's mission and capabilities
 - Support innovative STEM initiatives
 - Support and reward scholarly work from application of academic expertise to community engaged scholarship
 - Establish metrics to assess ***mutually beneficial exchange of knowledge*** and resources in a context of partnership and reciprocity

2. Strive for Excellence

- **Accomplishments** in Year One

- Formed an international strategy committee to review financial implications and value added of existing/proposed international partnerships
- Received grant to promote academic success among military veterans and other competitive grants related to STEM education and workforce development
- Supported campus initiative to establish a STEM Center in collaboration with the Schools of Science and Education
- Cultivated existing and established new relationships to encourage stakeholder investment

2. Strive for Excellence

- **Initiative:** Excel in teaching, research, and service (cont.)
 - ***Assess and evaluate*** progress
 - ***Measure*** activity and quality of faculty teaching, research, and service
 - ***Measure*** the career and professional accomplishments of our graduates
 - ***Link*** measures to our continuous improvement processes

2. Strive for Excellence

- **Accomplishments** in Year One
 - Proposed faculty activity workload survey (FAWs) to more systematically collect data on key faculty activities that align with E&T's mission

3. Enhance National Image and Reputation

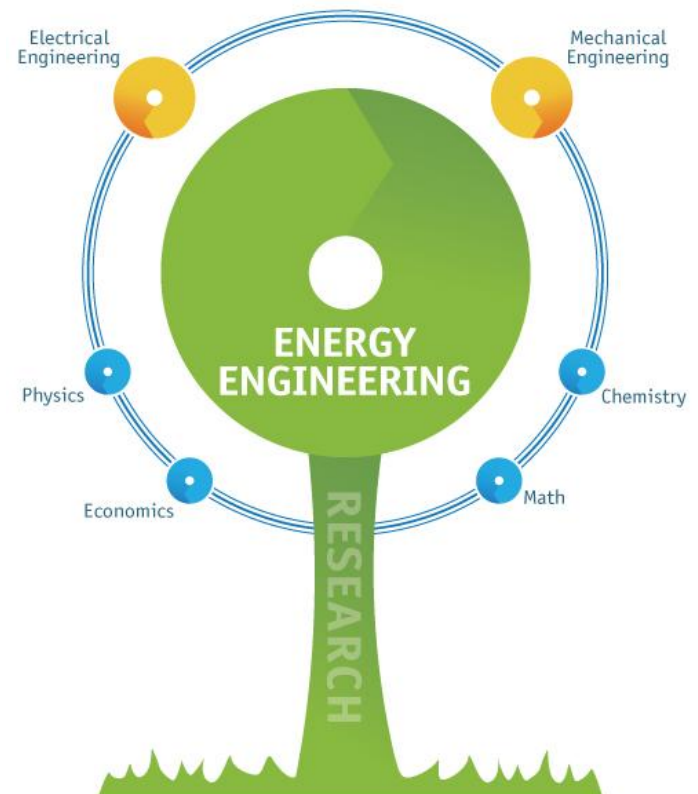
- **Initiative:** Increase **graduate *program rankings***
 - School of Engineering #107 in **USNWR**
 - Ranked ***ahead of*** Oklahoma State, Clarkson, Louisville, Tulane, Binghamton, Wayne State, SMU, UAB, Marquette, Alabama, Miami, Ohio, Wright State, Akron, Wisconsin-Milwaukee ...
 - Many good Schools ***unranked***: VCU, UNC Charlotte, UC Denver, Lawrence Tech, Naval Postgraduate School
 - Peer Assessment Score (.25)
 - Recruiter Assessment Score (.15)
 - Mean GRE Quantitative Scores (.0675)
 - Acceptance Rate (.0325)
 - Student-to-Faculty Ratio (.1125)
 - Percent of Faculty that are members of the NAE (.075)
 - Doctoral Degrees Awarded (.0625)
 - Annual Research Expenditures (.15)
 - Average Research Expenditures Per Faculty (.10)
 - BME #47, EE #84, CPE #85, and ME #101 in **USNWR**

3. Enhance National Image and Reputation

- **Initiative:** Leverage the Purdue affiliation, while advancing the IUPUI identity
 - Strengthen collaborations with PUWL faculty, especially when PUWL laboratory facilities can be leveraged
 - Establish PUWL College of Technology mentors for IUPUI tenure-track, research-oriented engineering technology faculty
 - Complement PUWL rather than compete whenever possible
 - Promote clearly and consistently IUPUI's advantages

3. Enhance National Image and Reputation

- **Initiative:** Promote programs that provide a basis for *distinction and differentiation*
 - Motorsports
 - Energy
 - Biomedical
 - Engineering Technology



3. Enhance National Image and Reputation

- **Initiative:** Research & development *investments*
 - Build upon success and previous investments
 - Transportation Activity Safety Institute
 - Richard G. Lugar Center for Renewable Energy
 - Biomaterials, Biomechanics, Cardiovascular Science and Engineering
 - CyberLab



3. Enhance National Image and Reputation

- **Accomplishments** in Year One

- Reorganized marketing efforts to be the responsibility of the assistant dean for development and external relations
- Made significant investments in TASI, the Lugar Center, and Bio-related research initiatives
- Hosted Technology workshop at IUPUI with the PUWL College of Technology to explore collaboration

Next Steps

- Establish/scrub baseline data and peer data
- Refine qualitative and quantitative goals and assessment metrics through mid-October, 2011
- Release a draft E&T strategic plan document for stakeholder review no later than November 30
- DIAC feedback on draft and DIAC action items during the December meeting
- Publish E&T strategic plan in January, 2012 with updated departmental and/or program plans to follow

IUPUI

SCHOOL OF ENGINEERING AND TECHNOLOGY

A PURDUE UNIVERSITY SCHOOL

Indianapolis