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# Purdue School of Engineering and Technology, IUPUI

## **Dean's Industry Advisory Council**

March 28, 2012

## **Today's Agenda**

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- Meeting Convened (Cindy Munerol)
  - Introduction of New Members
    - Jason Bush VP Operations, AIT Laboratories
    - Tom Stephens Systems Engineering Center Manager, Raytheon
- Professional Master Degree (Drs. Nalim & Smith-Daniels)
- Strategy Update (Dean Russomanno)
- Strategy Discussion (Breakout Groups)
- DIAC Committee Updates & Breakout Groups Report
  - General & Administration
  - Research
  - Diversity, Recruitment & Retention
  - Student Services
- Wrap-Up & Adjourn to SELB Groundbreaking



## Next Generation Professional Engineering Program Opportunities

### **Dean's Industry Advisory Council**

Vicki L. Smith-Daniels Faculty Chair, Emerging Graduate Programs Professor of Operations and Supply Chain Management Kelley School of Business

March 28, 2012



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#### **New Economy**

- Innovation
- Global Supply Chains
- Operational Excellence
- Customer-Focused
- Complex Technologies



#### **New Capabilities**

- Creative Problem-Solving
- Entrepreneurship
- Flattening Organizations
- Technology-Business Tradeoffs
- Team Projects



#### New Educational Programs

- Professional Engineering Masters
- Technical Leadership and Management Certificates
- Experiential Learning

### **Changing Career Paradigms**

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### "Fork in the Road" Decision

- Experienced Engineers
  Decision
- Management Track
- Technical Expertise Track

#### Technical Leadership and Management Portfolio

- Technical Professionals
  - Some Business Skills
- Technical Managers
  - Business
    Fundamentals +
    Management Skills
- Technical Leadership
  - Business Mastery + Technical Expertise

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- Project Management
- Communication
- Team Development
- Global Customers & Markets
- Business Plan Development
- Financial Analysis
- Six Sigma and Lean Management
- Creativity and Innovation
- Product Development
- Strategic Planning
- Market Analysis

### **Looking Outside**

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- Professional Masters in Engineering Degree
  - Engineering and Business/Management/Leadership
  - Capstone Industry Project
  - 30 credit hours- both full-time and part-time
- Technical Business Management Certificates
  - Business Fundamentals
  - Project and Team Management
  - 12 to 15 credit hours both full-time and part-time
- Technical Leadership Certificates
  - Business Management Curriculum
  - Agile Leadership Skills
  - 12 to 15 credit hours both full-time and part-time
- Dual Degree
  - MBA/MSE
  - 42 business credit hours + 24 engineering credit hours

## **The Opportunity**



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### **Join Our Discussion On**

### **Next Generation Professional Engineering Programs**

### **Contact:**

Joe Abella jfabella@iupui.edu 317.278.1868 phone

Vicki Smith-Daniels vsmithda@iupui.edu 317.274.0818 phone



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## **Strategy Update**

## **Dean David Russomanno**

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### DEAN'S INDUSTRIAL ADVISORY COUNCIL (DIAC)



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# General Administration Committee

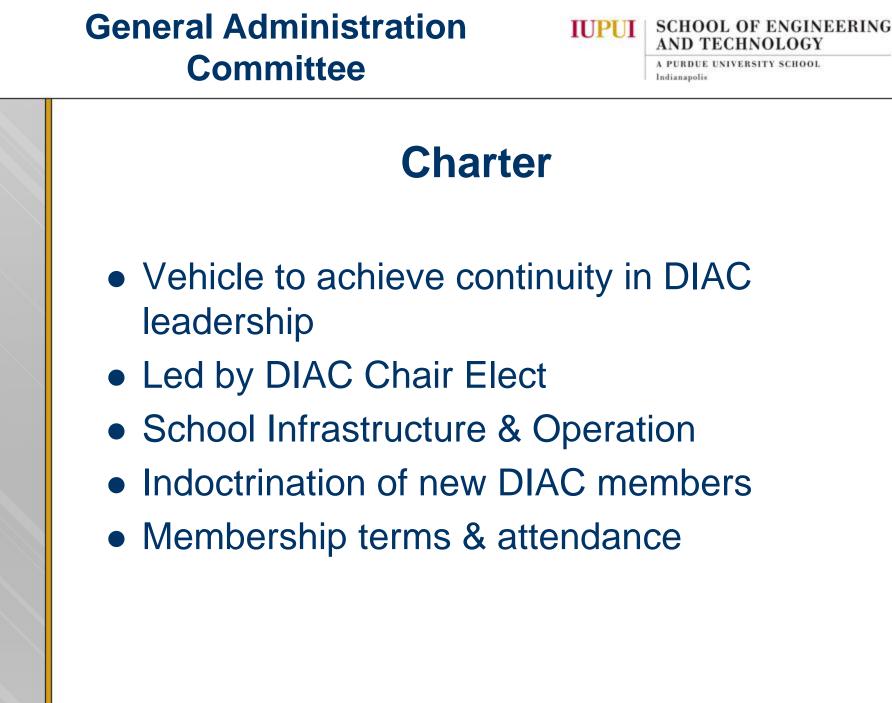
### General Administration Committee



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### Membership

- Vince Newsom, Chairman Delphi
- Joe Abella, IUPUI
- Cary Marston, Cummins, Inc.
- Frank St. John, Applied Engineering Services
- Malcolm Thomas, Rolls-Royce-retired
- Joe Ward, Wolf Technical Services









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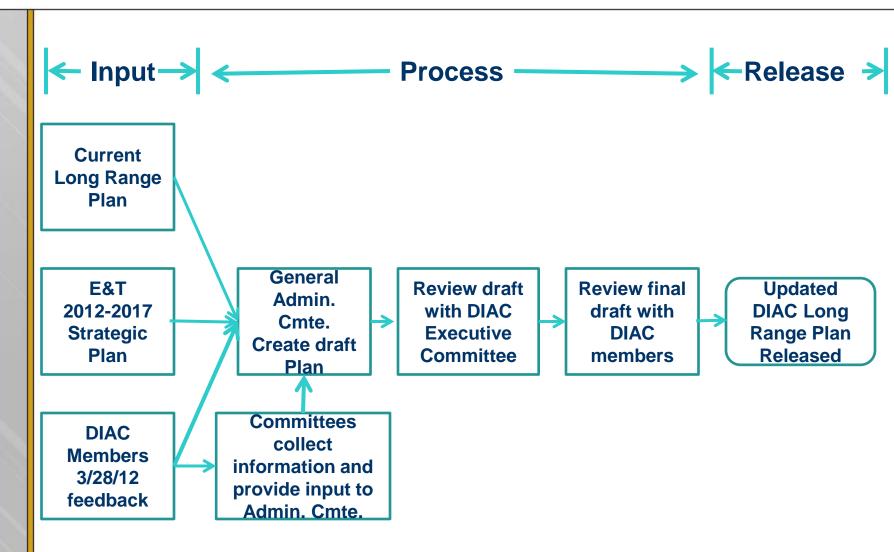
## Goals

- Update the DIAC Long Range Plans
- Committee Assessment
- Etc.

#### **Process for Update Long Range Plan**

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# Research Committee

## **Research Committee**



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- Wayne Eckerle
- Bernie Sepaniak
- Jorge Schreiber
- Joe Kitterman
- Bill Wylam
- Jim Wheeler
- Steve Wellborn
- Razi Nalim, Ed Berbari, Yaobin Chen, Jie Chen

### Met December 22

**Discussed Research Strategy** 

## **Research Committee**



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### • Met December 22

- Reviewed Research Strategy
- Determined that Graduate School Strategy should be included in Charter
- Initial Feedback on Professional Masters Degree Initiative

### DEAN'S INDUSTRIAL ADVISORY COUNCIL (DIAC)





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# Diversity, Recruitment and Retention Committee

### DIAC DIVERSITY, RECRUITMENT IUPUI AND RETENTION COMMITTEE

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## Mission

- Advance the ethnic and gender diversity of the Engineering and Technology student body.
- Focus upon improving and empowering the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE) and the Society of Women Engineers (SWE); IUPUI student organizations.
- Fulfill the broader objectives of the IUPUI Diversity Plan.

### DIAC DIVERSITY, RECRUITMENT IUPUI AND RETENTION COMMITTEE

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## Initiatives

- Engage School's Diversity Initiatives
- Engage Minority Student Organizations
- Support ISTEM Initiatives
- Support K-12 Summer Programs
- Assist the Student Services Committee
  - Co-ops
  - Internships
  - Job shadowing

### DIAC DIVERSITY, RECRUITMENT IUPUI AND RETENTION COMMITTEE

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- Membership
  - Kevin Zaletel, Chairman UPS
  - Clayton Nicholas Delphi
  - Kristin Jones Indiana Health Industry Forum
  - Chris O'Keefe Hill-Rom
  - Terri Talbert–Hatch Asst. Dean Student Services
  - Frank St. John, Past Chairman Applied Engineering Services



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## **Committee Goals**

- Increase number of opportunities for student interaction with discipline professionals (Career Forums, Coop & Intern Opportunities, Resume Reviews & Mock Job Interviews)
- Increase number of opportunities for internships or recruitment with DIAC member firms
- Make proposals on how to improve "marketability" and employment opportunities for students with 2.6 – 2.9 GPAs
- Make proposals and implement a more robust process for bringing together students and potential employers in areas outside of Engineering & Engineering Technology.
- Coordinate efforts with DIAC Diversity, Recruitment & retention Committees



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## DIAC Student Support Committee Update

March 28<sup>th</sup>, 2012

Jill Mendoza President i.d.o. Incorporated



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# **Mission Statement – "HOW"**

- The overarching purpose of this committee is to strengthen the relationships between the following key constituents;
  - DIAC member companies,
  - The university staff and students.
- By identifying relevant industry meetings, student or public events, publicizing these events to the constituents and providing good models of interaction that constantly grows the network that exists between them, the committee believes that it will be able to achieve the specific goals



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## **Membership**

- Joe Abella E&T Industry Relations
- John Galbraith Carrier
- Dale Jacobs BSA LifeStructures
- Bill Klenk Allison Transmission
- Mike Martin Eli Lilly NEW
- Jill Mendoza i.d.o. Inc.
- Terri Talbert–Hatch Asst. Dean E&T Student Services
- Jennifer Williams Director E&T Career Services NEW
- Bruce Wylam Hunt Construction

Bev Radloff left the committee having accepted a position at IU Medical School



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## Since the last update to DIAC

- Meetings
  - 2 committee meetings (2/17, 3/16)
  - 1 meeting with chair(s) of the Diversity Committee

#### Key Activities

- Developed a Process Map aimed at better understanding the existing process
- Reviewed the range of Career Services and Professional Development offerings provided in 2011/12
- Reviewed the list of E & T Student Organizations and discussed the characteristics that separated "the best from the rest"
- Discussed the various roles DIAC Members could play to make the process run more effectively



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# **Key Findings/Messages**

- There are many examples of best practice
- The challenge is how to bring the process and constituents to perform at a consistent best practice level?
- Tools identified that we believe will help improve consistency
  - Standardized communication process to/from/with DIAC Member Companies
  - Review of existing Guidelines/Expectations of DIAC Members
    - Provide more specific examples of how to bring the expectations to life
    - How can an expectations document successfully capture the "multiplier effect" – the key role of the DIAC member to "spread the news" inside their company and constantly expand the relationship?

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## **Next Steps**

- Meetings
  - 2 further committee meetings (May, June dates to be confirmed)
  - Potentially 1 meeting with the Administration Committee (guidelines and expectations)

### • Key Activities

- Design, Develop and Implement the standardized communication process to DIAC Member Companies
- Review the existing Guidelines and Expectations for DIAC Members documents; consider providing specific examples of best practices to encourage Best Practices
- Further discussion of the key role played by Student Advisors and the potential offered by Departmental Web Pages



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# **BACKUP MATERIAL**

## **Existing DIAC Guidelines**

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#### Guidelines

School guidelines for DIAC membership are as follows:

- 1. DIAC membership is generally extended to a company as opposed to an individual.
- 2. Members representing the company are appointed for a three-year term.
- 3. To assure active participation, a company may appoint a member and an alternate member.

4. Upon completion of the membership term, the company may appoint a new individual to serve on the DIAC in order to refresh interest and expand the community network or the company may request the same individual serve another sequential membership term.

5. If a member retires, changes employment, or must abandon representing the company for any reason during his/her term, the company should identify a replacement.

Company's that perceive no benefit in being a member of the DIAC and/or are not actively participating in DIAC activities may elect to terminate their membership at any time.

If a member has no active affiliation with a company, the member may continue their DIAC membership for up to a period of one year. This provides an opportunity for the member to represent a new corporate partner.

At the end of a three-year term, the corporate partner and the School may:

- 1. Identify a replacement for the current member, or
- 2. Request another sequential membership term for the current member, or
- 3. Terminate membership.

Note: The School may terminate the membership of an organization if opportunity for a mutually beneficial relationship does not exist. For example, an organization's mission, products or services change and no longer align with School programs and/or faculty expertise.

### **Existing DIAC Expectations**

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#### Statement of Expectations

Serving as a member of the Purdue School of Engineering and Technology's Dean's Industrial Advisory Council is both an honor and a privilege based on demonstrated record of distinguished involvement, support and commitment to the Purdue School of Engineering and Technology at IUPUI. By accepting a three-year appointment to the DIAC, a corporate partner and its individual representative agrees to fulfill the following expectations and commitments:

 Attend and participate in a minimum of 75% of all regularly scheduled DIAC meetings and subcommittee meetings. Meetings are held quarterly and other activities are held as approved by the DIAC membership.

Actively participate and engage in DIAC and School related subcommittee assignments. Occasionally subcommittee meetings are held in conjunction with DIAC meetings, but more often, meetings are held between regularly scheduled meetings.

 Serve as an advocate in the community for the Purdue School of Engineering and Technology, IUPUI, and the DIAC. This may involve talking with prospective students, meeting with other IUPUI and School/departmental representatives and/or alumni, attending and helping host local/regional/company or industrial related events.

4. Serve as an advocate and representative of industrial stakeholders of the School and the University to guide the School in the development of appropriate programs and actions that are useful to students and industrial concerns alike.

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5. Assist the School, Departments and University in identifying, cultivating, and involving constituents in target areas such as student recruitment, job placement, student projects, research opportunities, key opportunities and financial support.

6. Participate on behalf of the School at campus/institutional, community and industrial activities and programs, whenever possible. An example of these activities include the Purdue School of Engineering and Technology Honors Convocation in the Spring.

7. Become familiar with the academic programs offered by the School.

8. Accept leadership and participatory roles in School and University programs as needed, and work closely with administrators, faculty and staff on behalf of the School, University, and DIAC objectives in the development of the respective mission statements, visions, goals, objectives and strategic plans.

9. Consider contributing financially to the School at a level commensurate with my ability, and assisting with corporate gifts as appropriate.

# Wrap-Up



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## **Important Dates 2012**

- April 20, Friday: School of Engineering and Technology Honors Convocation & Dinner, 5:30 pm Social Hour, 6:30 p.m. Dinner
- August 30, Thursday: DIAC Meeting, 3:30 5:30 p.m.
- September TBD, Friday Afternoon: Alumni Golf Outing
- October 26, Friday: Joint Board of Advisors Retreat, 11:00 a.m. 4:00 p.m.
- December 6, Thursday: DIAC Meeting, 3:30 5:30 p.m.