# STATUS UPDATE: PUBLIC UNDERSTANDING OF ENGINEERING (PUE) WORKING GROUP

Chair: R.J. Trew

Members: C.F. Albus, J.A. Chamot, T.A. Conway, J.D. Culbertson, C.J. Gonzalez, V.H. Kass, S.C. Kemnitzer, B.M. Kramer, S. Rastegar

Scribe: E.D. Miller

ENG ADCOM Meeting, April 14-15, 2010

### PUE WORKING GROUP ACTION PLAN

- Review previous recommendations and actions
- Examine definitions of 'Engineering' and 'Engineer'
- Identify our audiences
- Review current activities to address PUE
- Determine what 'holes' exist in our approach
- Prioritize what we need to do
- Comment on the existing plan & recommend goals and actions

### **PREVIOUS RECOMMENDATIONS**

• **Overarching Goal**: Effectively invest in and seek partnerships to educate the public about the value of engineering research and education.

#### • Internal strategies

- Develop mechanisms to support PUE
- Set and enforce the lexicon
- Build on existing strong linkages with OLPA
- Make outreach a stronger element of broader impacts in proposal criteria
- External strategies
  - Research use of messages and outreach programs
  - Build community support and a unified voice for promoting engineering
  - Engage in community endeavors
  - Increase the prestige of engineering

### **DEFINING ENGINEERING**

### • Kids.net.au

- the practical application of science to commerce or industry
- a room (as on a ship) in which the engine is located
- the discipline dealing with the art or science of applying scientific knowledge to practical problems; "he had trouble deciding which branch of engineering to study"

#### • ABET

• The profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind

### WHO ARE OUR AUDIENCES?

#### Internal

- NSF leadership
- Other Directorates
- External
  - General public
  - University faculty
  - Students
  - Professional societies
  - Congress

## WHAT IS ENG DOING NOW?

- Distinguished Lecture Series
- Media projects
- Events
- PUE activities
- Grantee activities

### WHAT IS EHR DOING NOW?

- Multimedia projects
- Innovative Technology Experiences for Students and Teachers (ITEST) awards and Learning Resource Center

#### **DRAFT RECOMMENDATIONS**

- Craft a definition of engineering for the public
- Continue to partner with OLPA, EHR, and other NSF directorates on PUE activities
- Form long-term collaborations with engineering professional societies
- Partner with the evaluation/assessment community to identify contributions, challenges, and opportunities

### **DRAFT RECOMMENDATIONS (CONTINUED)**

- Provide training, support, and incentives for ENG personnel to serve as ambassadors
- Enhance the capacity to respond quickly to media opportunities
- Promote the use of supplements and grants for outreach activities
- Support the development of resource centers at grantee institutions

### **DRAFT RECOMMENDATIONS (CONTINUED)**

- Highlight the importance of outreach and dissemination in program descriptions, solicitations, and merit review
- Encourage communication beyond the engineering community

### **NEXT STEPS**

- Determine what 'holes' exist
- Prioritize what we need to do
- Comment on the existing plan & recommend goals and actions