PROGRESS ON RECOMMENDATIONS OF 4/29/2011
CU-BOULDER ENGINEERING ADVISORY COUNCIL MEETING

The key recommendations of the CU-Boulder Engineering Advisory Council (EAC) at its 4/29/11 meeting are provided below in italics, followed by summaries of the progress and plans made to-date on these recommendations. This summary report, prior reports, and other EAC information is posted at http://engineering.colorado.edu/overview/advisory_boards.htm.

Making the College Better: “Speed dating” sessions were held in small groups of EAC members and CU faculty/staff, to provide recommendations on how to make the College better in three areas. The key recommendations are given below in italics.

1. Develop future leaders through succession planning, incentives, and reactivating the Dean’s leadership development team
   We have expanded the appointment of Associate Chairs to 2-3 per department, with a focus on succession planning. We have requested that the allowable stipend for Associate Chairs be increased, and have put in place other leadership incentives such as Dean’s Faculty Fellowships and annual discretionary funds for Department Chairs and Associate Deans. Rob is selecting a third set of mid-career faculty to participate in his Leadership Advancement Group (FLAG).

2. Faculty and volunteers should be engaged in creative ways in the college fundraising efforts
   The engagement of departments and programs, along with their faculty and volunteers, will be critical to the success of the current fundraising campaign. Each department (as well as several programs) is assigned an Engineering Development team member as its liaison. While there are not currently enough development staff for them to each focus on only one department or program, we have seen a significant increase in engagement of faculty in fundraising, including meetings with donors, participation in events, and identification of prospects. Several departments and programs have re-oriented their advisory boards to have a substantial focus on fundraising. One or more Engineering Development team members will attend each CU football game this year, including away games, and EAC members and other volunteers are helping host events and participate in pre-game activities. The College of Engineering and Applied Science has established an Office of Communications and Alumni Relations and hired a new Alumni Director. She is creating a menu of volunteer opportunities with departments and programs, and increasing the use of Facebook and other social media to connect with alumni. The CU Foundation has started a Senior Class Gift program to build giving expectations among our graduates.

3. Identify unique strengths, develop partnerships, and pursue a big vision for CU to be a world leader in Energy and Environmental Sustainability
   Professors Karl Linden and Bernard Amadei are leading a college effort with a major proposal (~$4M) to the NSF Partnerships for International Research and Education program that will focus on Science, Engineering, and Education for Sustainability. This proposal will
be the sole proposal submitted from CU, as it was victorious in a campus competition. The Associate Dean for Research (ADR) office will provide support to the proposal development.

Two NSF Engineering Research Center proposals are being prepared for submission this month. One is led by Professor Al Weimer and has a major focus on ultrathin films to enable renewable energy technologies.

We continue to work on our partnership with the CU/NREL Renewable and Sustainable Energy Institute (RASEI), and are launching this fall a joint, cluster search to fill 10 faculty positions in renewable energy. The 10 faculty who are hired (over the next few years) will have homes in engineering departments and be fellows or affiliates of RASEI. We partnered with RASEI to pitch a large research investment in biofuels, building on C2B2, with a proposal pending.

**Education Committee:** The Education Committee discussed the first-year experience, the Engineering Honors Program, and the Engineering Entrepreneurship (E-ship) Program. Recommendations reported by Steve Dunn include

- *The Education Committee wants to continue meeting*
  The Education Committee will continue to meet, with a major focus in 2011-12 on improving climate and retention. Other updates include Fall 2011 matriculation targets achieved almost exactly with the new enrollment-management strategy, current piloting of a new *Introduction to Engineering* course, and creation of a *First-year Assessment Committee*. The formation of the *Center for Engineering Education Research and Assessment* (CEERA) is behind schedule but still expected in Fall 2011.

- *Resource allocations should follow enrollments*
  The Dean obtained partial funding from campus for increased enrollments and then allocated instructional funds to departments based on enrollments.

- *An advisory committee should be formed for the Honors Program*
  This issue will be addressed in the Fall 2011 semester.

- *Enhance the fundraising efforts for E-ship, and engage the Deming Center in this program*
  Fundraising efforts for E-ship resulted in about $75,000 in new gifts and pledges in FY11. Barb Lawton, Faculty Director of our Lockheed Martin Engineering Management Program, has worked with the Deming Center for Entrepreneurship so that engineering students interested in entrepreneurship will be able to pursue the new Cross Campus Entrepreneurship Certificate offered by the Deming Center, with elective courses from our current E-ship courses. We will continue to offer the Engineering Management Certificate and five associated courses for undergraduates, and the Dean has doubled his funding (to $50K/yr) for this program.

**Inclusive Excellence Committee:** The Inclusive Excellence Committee discussed improvements in recruiting women and minorities but also noted the recent loss of women after they enroll and the relative small number of underrepresented minorities who are prepared each year in Colorado for engineering study. Recommendations presented by Frank Figueroa include
• The Inclusive Excellence Committee should be subsumed by the BOLD Advisory Council and meet twice per year on the day before each EAC meeting
• Discuss retention of women and other students at the next EAC meeting
• Consider a professional-development program for faculty, to effect a cultural shift and better understanding of how students learn and feel valued

As recommended, the BOLD Advisory Council (BAC) has subsumed the EAC Inclusive Excellence subcommittee, and has agreed to meet for a full day twice annually the day before the EAC meeting, starting in September 2011. New this fall, the BAC has implemented a report card progress analysis and tracking model, with one-page individual report cards for each major BOLD initiative sent to BAC members ~10 days before BAC meetings so that meeting time can address red-flag areas on an exception basis rather than be spent doing program/initiative updates. As recommended by EAC and BAC, the bulk of the fall BAC meeting on 9/29/11 will be spent delving into retention issues --- the research, the landscape in engineering, survey results from our own engineering college, and focus groups with women during the BAC meeting. This subject will also be discussed at the EAC the next day. A weekly faculty professional development program has been initiated this fall with all instructors of the First Year Projects course, and the BOLD Center will be offering to conduct one to two professional development workshops at departmental faculty meetings for all departments, with offerings determined by late September 2011.

**Operations Committee**: The Operations Committee discussed the campus and college budget updates, the current academic review of the College, the Creating Futures fundraising campaign, and student retention. Key recommendations presented by Kristy Schloss include
• The Operations Committee should continue to meet, though it could be folded into the Executive Committee
• Lab reallocation and cleanup are needed, taking advantage of the move of Chemical and Biological Engineering to the new Biotechnology Building
• Retention review should be data and performance driven and consider an objective based on the students graduating (and not just matriculating)
• Consider what other engineering schools are doing well to improve retention and to create an environment where people want to belong

The Operations committee will continue to meet, with some common membership with the Executive Committee. A process was undertaken this summer for office and lab reallocation, in advance of the planned move of Chemical and Biological Engineering to the Biotechnology Building. Lab cleanup will be undertaken as part of the reallocation and move. While we will continue to track and report matriculation data, our retention study will consider and report graduation data, as well as gather best practices from other schools.

**Partnership Committee**: The Partnerships Committee endorsed the Engineering Leadership Program and is estimating at least 100 students per cohort. It also discussed the Colorado Impact Fund. Recommendations presented by JoAnn Zelasko include:
• The Partnership Committee would like to meet for at least one more year, to help launch the Engineering Leadership Program, and it prefers a time slot during the EAC meeting after the college update is presented
The Partnership Committee will continue to meet this year, with a primary focus on launching the Engineering Leadership Program.

- Mentors and seminar speakers/topics are needed for the Engineering Leadership Program
  The Engineering Leadership Program is being launched this academic year. The College has partnered with the Presidents Leadership Institute (PLI) in the design and offerings of the Engineering Leadership Program. PLI is an independent, nonprofit organization, in partnership with the University of Colorado Boulder, which is responsible for the Presidents Leadership Class (PLC), a nationally-renowned program that has guided the leadership development of Colorado’s most talented undergraduate students. PLI is expanding its reach into the campus, and the Engineering Leadership Program will be its first partnership. PLI brings a wealth of experience in education on leadership development and strong connections to community and industry leaders. Together, we will be developing the Engineering Leadership Gateway Course, which will be offered for the first time in the Spring, 2012 semester. This partnership will also open access to the PLC courses to our Engineering Leadership Program students. In addition, PLI has experience in student portfolios, and will provide support and guidance to help our students prepare their leadership portfolios. In addition to courses and portfolios, students in the Engineering Leadership Program will attend leadership seminars and have mentors. Engagement of EAC members and individuals whom they recommend in these activities will be sought when the program is launched.

- The Colorado Impact Fund should be discussed at the next EAC meeting
  A proposal to launch the Colorado Impact Fund, with a $9 M investment split equally ($3 M each) among CU, CU Foundation, and donors, was brought forward to CU Foundation Board this summer. The funding model was based on analysis by the CU Foundation on how much could be raised through donors interested in this type of investment. Due to other pressing funding needs of CU, it was decided that the fund would not be started. CU Foundation Board members remain interested in establishing such a fund, and it may be reconsidered in the future.

**Research Committee:** The Research Committee noted that heightened efforts are paying off, with high-quality faculty hires, a nurturing environment for faculty research, several large, interdisciplinary grants, four new NSF CAREER Awards, and an Office of the Associate Dean for Research (ADR) that now employs four people. Recommendations presented by Paul Hamilton include

- The Research Committee wishes to continue meeting, preferably on Friday mornings before the start of the EAC meeting
  The Research Committee will continue to meet and will adjust its schedule as needed.

- More help is needed in writing and packaging proposals
  The ADR office has partnered with departments and campus to provide funding and personnel support for major proposals, with a focus this semester on two Engineering Research Center proposals to NSF and a large proposal to NASA.

- Quick response is needed to establish new contracts, which are slowed by indemnification agreements
Our creation of the position Coordinator of Research Facilitation (filled by Linda Rose) is expediting the awarding of contracts and grants to faculty in our college. We have advocated for a campus committee to review the Office of Contracts and Grants and recommend actions for improvement – this committee has now been formed. And, the campus leadership now acknowledges the severity of the backlog in awards processing and has committed to remedy the situation.

- **The ADR Office should be continued**
  It will be! We have seen a good return-on-investment, with record levels of new grants received in each of the past three years.

**Resource Development Committee**: The Resource Development Committee received updates from the CU Foundation staff concerning year-to-date progress towards CEAS fundraising goals and the Biotech Building campaign, and they reviewed and discussed the *Creating Futures* campaign video. Recommendations and action items presented by Doug Smith include

- **Nan Joesten proposed a project in which all EAC members could participate and which would carry an EAC naming opportunity.** RDC members agreed to recommend that the entire board help fund a lab in the new Biotech Building. The suggested amount of contribution is $3,000 per member, which can be spread over multiple years. In addition, the group will seek “matches” from members and their employers to reach a total goal of $200,000.

Nan Joesten and Doug Smith are following up with EAC members to encourage their commitment to the project. Ann Scott from the Engineering Development team is tracking the gifts and pledges from EAC members. The RDC will discuss this project in their meeting on September 29th, and the total received will be announced at the EAC meeting the following day.

- **RDC members were asked to fill out and submit a Volunteer Involvement Form.** Among the ways members said they would like to be involved are: hosting a very small dinner at their home, signing letters to classmates, hosting others at home or away football games, and bringing guests to DEAA and other events.

  Two EAC members and two non-members have offered to host small dinner parties at their homes. Offers were made to sign holiday cards and letters to classmates, and the Engineering Development team will work with those individuals. One member will host a gathering the night before an away football game. Several members suggested names of prospects to contact. Two members said they will bring guests to events such as DEAA.

- **The RDC is enthusiastic about progress on fundraising for the Biotechnology Building and about growth of the Dean’s Club, with all EAC members encouraged to participate in both efforts**

  As of 9/12/11, 29 EAC members have made a gift or pledge commitment for the Biotechnology Building via the EAC group gift. There were 83 members of the Dean’s Club in FY11 (ending 6/30/11), of which 28 were EAC members. So far in FY12, there are 16 Dean’s Club members, of which 5 are EAC members.

* R. Davis 9/14/2011