

SUMMARY OF KEY RECOMMENDATIONS

CU Engineering Advisory Council Meeting on 4/24/09

CU Engineering Venture Fund – The proposed venture fund should be focused on CU but not exclusive. It should seek a 30% annual return on investment (normal) and not be philanthropic, but investors will be encouraged to donate part of their earnings. It should work closely with the CU Technology Transfer Office, the Eship program (development of business plans by student teams), and the Espace Center. A general partner is needed to run the programs and raise its first \$10-15 million. Largest return to the College may be long term, in the form of donations from students and faculty who become successful entrepreneurs.

Graduate Student Recruiting – Identify and network with key schools from which to recruit, including top students from foreign institutions, Puerto Rico, and 2nd-tier U.S. schools. Identify and publicize unique strengths of CU and noble causes (e.g., Engineers Without Borders). Provide opportunities for undergraduates to make short-term visits to CU for research experiences, national conferences, etc. Develop a purposeful campaign using their media (Facebook, web,...) and our looks (location, weather, key faculty, challenging projects,...). Keep the current graduate students happy (time with faculty, good pay, opportunities to present and publish) and use them in recruiting new students. Focus funding on PhD students.

Undergraduate Student Recruiting and Access – Continue partnerships with key schools, Colorado MESA, and admissions office. Expand CU presence in rural areas. Work with financial aid office to make offers earlier. Provide sensitivity training to all faculty, not just new faculty, with a focus on providing an environment where underrepresented students feel nurtured and safe when asking questions in class and office hours. Provide more opportunities for teamwork and undergraduate research. Continue to raise scholarship funds to help support students with underrepresented backgrounds.

Energy Systems & Environmental Sustainability – CU should have a focus on clean energy (e.g., wind, solar, biofuels) where it has unique strengths. Coordinate this focus with entrepreneurial efforts. Use the new Energy Institute to coordinate efforts across campus (technology, policy, economics, social factors). Capitalize on regional partnerships (NREL, CSM, CSU) but also add an international component (e.g., Spain = solar, Brazil = biofuels). Nuclear energy will become more important – what will be CU's role? There is a huge mismatch between growth in energy demand and new laws to reduce carbon footprint – what role will CU play in improving energy efficiency and reducing carbon emissions?

International Research and Graduate Partnerships – Global experience will help our students get jobs. CU does not have as strong of international reputation as some other U.S. universities (primarily on the east and west coasts) – thus, to build international research and graduate partnerships, we should develop exchange and collaborate programs with selected schools in foreign countries. A recommended long-term strategy is to train PhD students to return to be faculty members in their home countries. Benchmark successful international programs, including CMU and MIT. Exchange programs should be at the research level, to build long-term relationships.

Engineering Leadership Program – One group recommended against a separate engineering leadership program and that we instead develop a mechanism to provide an “Engineering 2.0” skill set to all students, including broad perspectives, customer orientation, business knowledge, teamwork,

communication abilities, creativity, ethics, service orientation, volunteerism, persistence, etc. The other group did not have a firm answer on whether or not to form an engineering leadership program but noted gaps in young engineers entering the work force, including communications and team work. It was suggested that these skills could be provided to students via senior programs, a leadership seminar, Eship, case studies, etc. Guest speakers from the community should be used. Leaders need followers, but all should understand leadership principles and problem solving.

EAC members in attendance:

D. Agonafer, G. Anderson, S.J. Archuleta, B. Bauer, J. Becker, K. Coyne, P. Drew, , F. Figueroa, J. Gallogly, L. Glatch, P. Hamilton, D. Hernandez, M. Herriage, N. Joesten, J. Kennedy, R. Kolibaba, R. Krebs, J. Liebman, P. Mannetti, J. Negler, V. Norviel, L. Pinchuk, F. Prager, A. Sanders, L. Sanders, K. Schloss, D. Smith, J. Tietjen, J. Voss, M. Wirth