

MINUTES AND RECOMMENDATIONS
10/17/02 Meeting of the
Engineering Advisory Council & Resource Development Committee
College of Engineering and Applied Science
University of Colorado at Boulder

INTRODUCTIONS AND ANNOUNCEMENTS

The meeting started with introductory remarks and announcements made by EAC Chair George Sissel. He mentioned that this was a combined meeting of the Engineering Advisory Council (EAC) and the Resource Development Committee (RDC), and that it was a unique opportunity for the two groups to get together in view of the formal opening of the Discovery Learning Center (DLC) the following day.

Dean Robert Davis introduced the new Associate Deans, John Bennett and Stein Sture, Assistant Dean Jim Sherman, and the department chairs.

DEAN'S INTRODUCTION AND VISION

Rob Davis opened his presentation by announcing the recent victory of the College's Solar Decathlon Team at the highly visible national competition recently held on the mall in Washington, DC. He then presented his vision for excellence in research and education, and gave an overview of his own background and experience. He reviewed college goals of top-15 national rankings and 10% increase in research funding per year, as well as strategies to meet these goals. These strategies include expanded PhD programs, faculty involvement, development of core strengths, and new initiatives in six areas: space sciences and engineering, micro/nanosystems, computational sciences and engineering, earth systems and environmental engineering, assistive technologies, and biotechnology and bioengineering.

Rob reviewed his role as dean, and EAC's role, and he emphasized the goal to build a culture of leadership, which includes development and stewardship in areas of research and education, and development and support of research centers and initiatives. Management of college resources and communication of our excellence and vision in partnership with EAC and RDC are also important.

CAMPUS UPDATE

Rob Davis introduced Chancellor Richard Byyny, who began his remarks by expressing his thanks to previous deans Ross Corotis and Roop Mahajan, and noting that Rob Davis is continuing a tradition of strong leadership for the College. He made brief mentions of recent campus accomplishments, including the Solar Decathlon team's victory. Byyny also remarked that the College plays a major leadership role on campus in both education and research, and he complimented EAC/RDC on contributing to the College's excellence.

Chancellor Byyny continued by stating that we are currently facing difficult times, especially in terms of state funding, and that we are increasingly dependent on the support of alumni and gifts. The campus is presently facing a \$11 million budget reduction, and the plan is to deal with this cut through combinations of financial reserves, increased tuition revenue due to increases in student enrollments, and selected cuts of programs and

services. The aim is to focus on excellence and quality, and invest in areas of strength and growth potential. He mentioned in particular space sciences as an area of strength.

The Chancellor recognized recent student and faculty awards, in particular the two Nobel Prize winners, and recent as well as past MacArthur Awards. He also noted the NSF PECASE awards to college faculty members Ken Gall and Jorge Zornberg.

Two years ago, Chancellor Byyny proposed that we focus on quality of our educational programs and stabilize enrollments. He mentioned that we might aim for 4,900 new freshmen, rather than the 5,400 new freshmen we experienced this fall semester. Also, we need to invest in students and provide financial aid to get the very best students, both undergraduate and graduate students. We need to enhance excellence in many areas of our campus, and he briefly related how we may devise a process for making investments on campus. We need infrastructure, especially high quality space. In what has been termed Quality for Colorado, the goal is to increase tuition by \$1,200 per year over a period of four years to fund our educational programs and to increase financial aid. We also need to continuously highlight our emphasis on vertical integration and project-based team learning, which is spearheaded by the College of Engineering and Applied Science, and specifically activities in ITL and DLC.

Chancellor Byyny also discussed other investments on campus, including support of faculty and programs. He reiterated campus focus on specific initiatives, which in many instances are closely aligned with college initiatives, and he re-emphasized the campus need to focus further developments in areas of current strengths. These initiatives are also part of his concept for Quality for Colorado.

David Weiss asked the Chancellor about the status of the proposed tuition-voucher system and how it might affect the College and campus. Byyny responded that the proposed voucher system is in general not a bad idea, and he sees no fundamental flaws in it. However, in recent months he has observed new trends in that the voucher system now appears to become a mechanism to shift more support to the State's two-year community college system. He then related basic state-funding statistics, where the State provides about \$5,000 for each resident undergraduate and graduate student. If the proposed tuition-voucher system results in a revenue-neutral scheme, that would be acceptable and the campus could work with such a system. However, the fear is that the actual funding coming to the campus via a voucher system might be smaller than what is provided by the current funding model. The Chancellor mentioned that CCHE supports Quality for Colorado, but at this stage it seems that only the Boulder and Health Sciences campus would get the go-ahead, as opposed to the entire University system.

Lanny Pinchuk asked the Chancellor what the schedule or time-line would actually be, since CCHE had very recently rejected Quality for Colorado for the entire University system. Is it realistic for the Boulder campus to come back with a revised proposal soon? Chancellor Byyny responded that the administration will continue working on the proposal, and he expects to bring Quality for Colorado for the Boulder campus back in January 2003. It appears that the main concern is the size of the \$ 1,200 tuition increase over four years. He reminded the EAC/RDC members that our resident tuition remains very low compared to that at other state universities.

DEVELOPMENT UPDATE

Dean Rob Davis introduced Myrna Hall, and he noted that he and she had a developed Memorandum of Understanding for day-to-day working relations between the Foundation and the College. Myrna Hall gave a quick update on campus fundraising and the search for a new Director for Engineering Development. Three

short-listed candidates will be invited to campus in early November, and she related that all candidates have proven track records of fundraising and related activities at major universities.

Myrna Hall also extended thanks to Terry Mayes, Pat Sullivan, Kristin Germain, and former Engineering staff Paul Baumann and Heidi Dormody. She mentioned that Engineering Development is short of one staff member, in addition to the new director, and that further growth of staff is expected. Myrna reiterated that, while the campus is not in control of State funding for the University, we are in control of fundraising, and that gifts and endowments figure prominently in our planning and budgets. Engineering is the top priority on campus for the CU Foundation.

In terms of overall performance, Myrna Hall mentioned that the investment portfolios at the Foundation are doing quite well, even in these difficult economic times, and that we are even outperforming TIAA/CREF with regard to many of the key indices.

George Sissel asked Myrna about specific details related to the much-publicized disagreement among two of the candidates for Regent in District 2. Myrna briefly stated the facts as she saw them, where one of the candidates had served on the Foundation's Board, and that the issue mainly centered on software problems that the Foundation had at the time. Myrna Hall stated that the Foundation tries to be as open and transparent as possible in all its dealings, and that the CU Foundation has only one mission – to serve CU.

David Weiss asked Myrna if there were any applicants for the Engineering Development Director from within the CU system, specifically the CU Foundation? She responded that there were no applicants from within CU Foundation. Rob Davis asked if the Foundation has procedures in place to develop people from within to assume leadership positions. Myrna indicated that it is the goal of the Foundation to bring staff up through the ranks to become directors or managers, and they hope to do a better job in the future.

DEAN'S REPORT: STATE OF THE COLLEGE

Dean Rob Davis congratulated Bernard Amadei, CEAE faculty member and recipient of the Bank One Colorado Faculty Community Service Award. Bernard is the founder of Engineers Without Borders, and has brought water systems engineering technology to developing countries.

Rob then presented historical data on the College. Over the last twenty years, the College has increased about 50% in size, in faculty and student numbers. There have been small improvements in college diversity data, but much greater improvements will be sought.

Most of the research awards the College has received are from the federal government, and they grew 10-fold from \$4 M in 1985 to \$40 M in 1995. After a dip to \$30 M in 1989, they have risen to \$39 M.

The College's US News and World Report ranking has been consistently in the top 25 to 30 for undergraduate level and 30 to 35 for graduate level. Our goal is to be in the top 15 for both levels.

The Engineering Center has approximately 270,000 assignable square feet, of which about 100,000 square feet are research labs, 100,000 square feet are offices, and most of the rest is classrooms. We have a need for about 150,000 square feet of lab space as it relates to a goal of \$50 M in research expenditures and 675 PhD students. Currently, research space is not evenly distributed among departments.

The College is faced with the challenge to effectively use the space and technology available in DLC and to meet the expectations of the Discovery Learning Initiative. The two associate deans have been charged to chair the DLC Task Force to meet these challenges. The DLC's goal is vertical integration of research and research-based learning. The DLC will likely need at least \$250,000 per year in management and operation funds. \$2.3 M are also still needed to finish the building.

The Dean gave an update on Technology Transfer, an issue discussed at last spring's EAC meeting. David Allen, Assistant Vice President for Technology Transfer, and Ken Porter, Interim Director of the Boulder Office of Technology Transfer, have developed an educational series on intellectual property as it pertains to MEMS, micro fluidics, optoelectronics, and on financing start-ups. The campus will give Inventor Awards, and five of the finalists are from Engineering. Engineering tech transfer activities include several disclosures, licenses and start-ups in the past year alone. Currently, tech transfer income is divided as ¼ to inventor, ¼ to inventor's laboratory, ¼ to the inventor's department and ¼ to the university.

A comment was made about the need for a tech transfer person in the College. Rob previously discussed this issue with Jack Burns, Vice President for Research. Jack is supportive in principle, but does not have the money to support this position. However, starting next month, there will be a part-time tech transfer person assigned by the Boulder office one day per week to the College.

Over the past six years of the campaign, Engineering Development had great success in raising more funds than their goal. This year, results are down. Alumni donations have dropped, partly because of the economy, and partly because many donations were made to building the DLC. The efforts of the Development Staff are greatly appreciated.

The Chancellor previously announced an \$11 M cut in funds the campus receives from the State. The College's share of this cut will amount to \$360,000 in FY03 and \$500,000 in FY04. The Provost has promised to provide the College with \$2 M one-time funds over three years, \$250,000 per year in continuing funds, five faculty growth positions, and partial funding of an Assistant Dean for Administration position. Thus, the College will be making both selective cuts and selective investments.

REPORT BY ASSOCIATE DEAN FOR RESEARCH STEIN STURE

Towards our goal of continued growth of research (10%/year) and improving the quality of our PhD students and researchers, we need to provide them with the necessary space. The campus has a lease/purchase agreement for the Exabyte building on Exposition Drive near Arapahoe for research and educational use. This building has 55,000 to 65,000 square feet of assignable space and costs about \$100/square foot. The Department of Computer Science and some smaller programs are being considered for this building.

The planning for the Engineering Teaching and Research Laboratory (ETRL), the College's next building project, has been put on hold. This was projected to cost \$62 M, with 150,000 square feet, and to be financed partly with donations, state funds, and research funds. But with the State's moratorium on capital projects, financing for this project is not expected for at least another few years.

The College has the following research initiatives:

- Microsystems/Nanosystems
- Computational Sciences and Engineering
- Earth Systems and Environmental Engineering

- Assistive Technologies
- Biotechnology and Bioengineering
- Space Sciences and Engineering, including Unmanned Aerospace Vehicles

A question was asked about mentoring junior faculty on research proposal writing. Stein's job includes helping junior faculty with grant writing, scheduling, planning and strategies to achieve research awards.

REPORT BY ASSOCIATE DEAN FOR EDUCATION JOHN BENNETT

The title change from Associate Dean for Academic Affairs to Associate Dean for Education reflects a change in scope and includes both graduate and undergraduate education. One of our goals is to educate students for leadership and citizenship:

- To prepare students to be leaders through seminars, course work in subjects including grant writing and business ethics, and shadow programs
- To provide opportunities for students for the understanding and appreciation of humanities
- To provide the students with a global perspective by offering service leadership opportunities to students abroad

Another goal is to double the number of women and minority students within seven years. This will require programmatic changes, plus significant new emphasis on outreach, recruiting and retention. Other programs we plan to institute for students include design and research experiences for undergraduates and interdisciplinary programs and initiatives.

JoAnn Silverstein will lead a college working group composed of faculty, staff and students to discuss climate for diversity issues. One of their goals will be to create a comprehensive review of the current climate for diversity for the College.

There is no facility on campus providing care for infants less than 12 months of age. The College of Engineering and Applied Science is discussing a project to provide this service for faculty and students who might need them. It is estimated to cost about \$400,000 to remodel the necessary space.

Feedback and discussion included that the goal of doubling the number of minorities in the College may be difficult, since only minor changes have occurred in the past ten years. What enticements are in place to attract minority students to the College? With improved retention of minority and women students, John noted that will be half way to reaching our goals. Scholarships are needed. Outreach should start at the eighth grade. The College currently has excellent outreach programs like Space Grant and ITLL. More programs should be encouraged and funded.

PRESENTATIONS BY STUDENTS

The first student group to present was the National Champion CU Solar Decathlon Team. Key individuals include faculty adviser Michael Brandemuehl of the Civil, Environmental and Architectural Engineering Department, Architect Richard Epstein, who serves as co-adviser on the project with Julee Herdt from the College of Architecture and Planning, Matthew Henry, on-site project manager and team leader, and about 40-50 students from engineering, architecture, business and journalism.

The second student group to present was from the Aerospace Engineering Sciences Department. This group described the AES Aerobotics program: Students involved are Matt Allen, Cory Dixon, Christian Eheim, Steve Nauman, Gabe LoDolce, Derrick Maestas, Brenda Mulac and Victor Yang; this vertically integrated team includes both undergraduate and graduate students. The faculty involved are Judy Curry, Brian Argrow, Michel Lesoinne, Scott Palo, Kurt Maute, Rick Osborne, Jim Maslanick, James Pinto and Sheldon Drobot.

EAC BYLAWS APPROVED

Modifications to the EAC bylaws were approved as previously mailed to the EAC members, with two changes/clarifications:

1. Part (b) of Section 2 of Article II was modified to read, “The terms of office of those constituting the regular members of the EAC shall expire on June 30 of successive years, with the goal being that the terms of eight (8) members, in general, expire each year.”
2. The third sentence of Article III was modified to read, “A Vice Chair shall also be nominated by the EAC Executive Committee and shall be approved by the members of the EAC and serve a like term of two (2) years. The Vice Chair shall be considered as ‘Chair Elect’ and shall be the Executive Committee’s nominee for succession as Chair.”

“RESOURCE DEVELOPMENT COMMITTEE” BREAKOUT SESSION

Background:

Several slides were presented related to the fundraising successes over the last six years. Also presented were a proposed set of College fundraising priorities, an ITLL and DLC gift analysis, and several possible scenarios for raising funds for a new building. A discussion of the DLC, its initial plans, and the purposes for the video gateway were also discussed.

Suggested Actions:

Discovery Learning Center Funding Shortfall (\$2M+ shortfall)

- Fundraising ideas:
 - Charge-backs for groups using conference center
 - College recruiting advertising through video gateway, utilized during recruiting season
 - Media content companies showcasing content through video gateway
 - Selling logo space on screens
 - Work with existing donor base
 - Find a single donor willing to provide a good deal of funding to name the building (naming rules require gift of half of the cost of private fundraising portion – in this case over \$3.5M)
 - Providing constant updates on new DLC visions, goals, progress, needs
 - Using inspiration to pave the way for new donations and to cement relationship with prior donors
 - Connecting unique DLC work with prospective donors, companies – encouraging labs to do unique invention work (e.g., biotech and aerospace)
 - Named labs (price tag about \$250K, but important to acknowledge that labs are not guaranteed permanence within the building)
 - Financial industry (e.g., Visa card advertising) – target this industry, as they are doing well in existing economic climate and wish to reach students as customers of their products
 - Intelligent, multi-media, multi-continental, systems and sensor integration

- Interested in integrated systems and algorithms for risk management and predictive analysis

Resources and Strategies for Funding New ETRL Building

- Legitimate need acknowledged
- Extremely challenging fundraising goal in current macro-economic environment
- Need to explore alternatives (adding on, virtual university, etc.)
 - Exabyte building a possible alternative for space
 - Lease space now and then plan for future building
- Need to understand how this building fits into Boulder Campus priorities
- Lacks compelling vision and story, but don't give up
 - Spend time to formulate unique goals and vision
 - Determine unique need that ETRL can fulfill that's not currently met
 - Scale model/fly-through visualization of planned structure
- Lobby federal sources for more earmarked support
- Focus on legacy/planned gifts
 - Good for current economic times
- Marketing to get to new donors
 - Cultivate younger, entrepreneurial donors
 - Build relationships with those who will be the \$100K donors of tomorrow

Most Promising Fundraising Prospects among other College Priorities

- First priority:
 - Funding DLC Shortfall
 - Need compelling vision and connection with donors
 - New CD ROM or flier
 - Named Professorships
 - Earn-Learn Scholarships (heartily endorsed)
 - Have donors visit the College and talk to the students whom they are supporting
- Second priority:
 - Teaching/Research Lab Remodels, and Engineering Center Additions
 - Need more data and input
 - Need more compelling vision and motivation beyond "we need more space"
 - Named Chairs
 - 6 over 4 years too ambitious; 4 over 4 years more realistic
 - Tie it into planned giving, with short-term support prior to eventual gift of chair

Infant Care Center

- Campus-wide need acknowledged, for both men and women
- Not a College of Engineering priority from perspective of RDC members
- This is a campus responsibility, a university issue – not just important to the College, not just important to women
- This idea competes for space, when space is already at a premium
- Doubts about the State of Colorado, or CU, doing this efficiently
- Current proposed per-infant cost is very high (\$400K remodel for only 8 infants)

- Subcontracting to a private care provider would be more efficient – perhaps do this with part of the Exabyte space

Annual Giving

- Need a compelling, college-wide appeal for Dean’s fund
- Programs and departments with compelling messages tend to dilute College-wide giving (which is okay, as the college-wide Dean’s fund also helps support programs and departments)

“CLIMATE FOR DIVERSITY: IMPROVING OUR COLLEGE” BREAKOUT SESSION

(Topics: Current Status and Future Goals, K-12 Outreach and Alliance with Community Colleges, Partnering with Industry, and Faculty Recruitment and Retention)

Background:

Data reviewed included data on women and minorities in the College: Undergraduate: 20% female, 7.5% Hispanic, 1% African American and less than 1% American Indian; Graduate (MS/PhD): 23/19% female, 4/1.5% Hispanic, 1% African American and less than 1% American Indian. These statistics hold across BS/MS/PhD in most categories, but there are more Hispanics at the undergraduate level. While progress has been made, the College has far to go in having graduation rates that mirror the population demographics. In some areas (female), we appear to have hit a plateau. Doubling of these numbers was suggested as a goal, but this might be problematic in some populations (Hispanic), considering the declining high school graduation rates. The good news is that we are retaining underrepresented students in about the same proportion as the general student population, and retention has been greatly improved. Faculty diversity is much lower than desired (10% female, 6% Black, Hispanic, Native American).

Suggested Actions:

- The key to enrolling and graduating a diverse population is to target recruitment of minorities early – 5th or 6th grade, building relationships with students, counselors, parents and with community colleges.
- Industry can provide a model for “no-nonsense” achievement of diversity goals.
- Develop a budgeted program for improving diversity.
- A good database is essential for collecting and tracking overall enrollment and graduation data. If a new program is implemented, keep good records to allow for evaluation and changes if warranted.
- Administer a survey to current students and to minorities and women in high school and their counselors to determine their perception of the College, CU, Boulder, etc.
- Form better alliances with Tribal Councils.
- Improve alliances with Arts & Sciences – broaden the groups we target.
- Faculty diversity is stagnant:
 - Improve recruitment by staying in touch with other universities.
 - Make sure that “what’s offered/available” in a hiring package (e.g., salary, start-up, travel, research seed \$) is well understood and is competitive with other institutions.
 - Improve retention by having a strong commitment to equity, and assess periodically.
 - Put in place a systematic mentoring program for women and minority faculty that includes regular follow-up.
 - Show zero tolerance for sexual harassment and misconduct.

- Conduct “succession planning” of sorts – build relationships such that K-12 students feel like there is a natural succession to college; undergraduate students feel there is a natural progression to grad school; and grad school students feel there is a natural progression into academia.
- Identify resources and “go after them”.

“DISCOVERY LEARNING: MORE THAN A BUILDING” BREAKOUT SESSION

(Topics: Discovery Learning Initiatives and Vision, Tenant Expectations and Accountability, Use of Building Resources and Technology, Ongoing Management and Budget)

Background

The vision for the DLC is the vertical integration of interdisciplinary research and learning in conjunction with corporate partnerships.

Suggested Actions:

Discovery Learning Initiatives and Vision

- How to engage faculty in DLI
 - Respect the fact that many are currently overworked
 - Ask them to lecture or guest lecture
 - Faculty who are not located in the DLC must be involved for the vision of DLI to be fully realized
 - Invite faculty from outside of engineering to lecture
- Do live webcasts of DLC events for alumni and corporate affiliates
- Issue certificates for undergrads who participated in DLC/DLI
- Consider collaboration with the School of Journalism and Mass Communication to improve the communication and display of technical information
- Create a new K-12 emphasis to include teachers in research
- Teach grad students how to teach
- Offer a graduate course in research methods
- Offer a graduate course in technical communications

Tenant Expectations and Accountability

- The group reviewed original “expectations” and “assurances” for DLC tenants
- The group then reviewed the “DLC Tenant Accountability” document prepared by the DLC task force. Tenants must:
 - Use space in accordance with DLI intentions
 - Support active enquiry by visitors
 - Participate in annual review (written report, student research conference)
 - Original tenants must compete for renewal after 5 years on the basis of how well their objectives were met and considering priority of other applicants/tenants
 - Follow-on prospective tenants compete for space every 3-5 years and the best idea wins.

Use of Building Resources and Technology

Spaces include:

- Conference Center
- Video Wall

- Labs
- Public Space
- Tenants
- Visiting Researcher Offices
- Connection to ITLL
- Terraces
- Coleman Lab

The group reviewed “Proposed Terms of Use” by the DLC Task Force:

- Accept full responsibility for “preservation”
- Indemnify and hold harmless
- Pay rent
- Must have financial wherewithal to repair
- Leave facility ready for the next event
- No open flame, no red wine
- Provide security as necessary

The group suggested several additional items to consider:

- Need a priority system for internal vs. external use
- Minimize DLC use for non-research, non-educational functions
- Benchmark fees for similar local facilities to determine market pricing

Ongoing Management and Budget

The group reviewed the ongoing management and budget proposal:

Proposal

Full Time Director	\$75,000
Technical Aid	\$35,000
Administrative Support	\$12,500

Plus:

Video Wall	\$125,000
A/V System	\$50,000
Network Infrastructure	\$50,000
Other Operating Expense	\$12,500

The group reviewed and discussed possible sources of DLC income:

Possible DLC Income

Engineering Excellence Fund	\$100,000
Rentals	\$20,000
Grants, Gifts	?
Other (Video Wall)	?
DLC Corporate Affiliates	?
College	\$240,000
Tenant Taxes	?
Grant Taxes	?

The group was not in favor of corporate affiliate surcharge, nor a tenant or grant tax. It was suggested that BP pay for video wall usage.

“PLANNING FOR THE FUTURE: MEETING COLLEGE NEEDS” BREAKOUT SESSION

(Topics: Analysis of Needs – People, Spaces and Resources, Exabyte Building, Engineering Teaching and Research Laboratory, Infant Care Center)

Background:

A slide on faculty productivity with respect to research grants was shared – 90% have research grants. Need to focus on bringing up lower performers. Information about the new Exabyte building was also shared.

Suggested Actions:

Suggestions with respect to Faculty Productivity

Focus on bringing up the lower performers to the level of the higher performers – perhaps by “cloning” the high performers and encouraging them to coach other faculty members who are less successful in securing grants.

Exabyte Building

The opportunity may be too good to ignore – and it may be the only good choice that the College has right now for additional space. If we don’t use it, it may foster the perception that if we don’t want it, we really didn’t need space very badly.

Possible tenants for Exabyte building space include Computer Science, Telecommunications, Engineering Management, or 5-6 centers. Use a reward system for any willing to move – e.g., a lower overhead rate. Moving Computer Science might not serve the larger interests of integrating computer science into the campus at large.

ETRL Building

This option was deemed not practical, given the lack of state funding and the current economic situation.

Infant Day Care Center

While interest in this center was expressed by those polled, there were many of concerns expressed, including:

- No other college has an infant day care center
- These centers can be expensive, hard to do well
- Graduate students may not be able to afford to use them
- Is this really the best use of funds? – Perhaps it would be better to take the dollars you would have used for this center and give it directly to faculty who are affected by this situation to use in purchasing their own infant care options
- Perhaps this center should be a campus-wide initiative – not borne by the College of Engineering specifically
- Not a core competency of the College of Engineering
- Perhaps we could somehow “incent” existing infant day care centers to “step up” and take this task upon themselves
- The data were challenged as to whether an infant day care center is really necessary/critical to successful recruitment of female/minorities
- Loss leader for the College – terribly costly way to solve a relatively small problem

On the positive side, the following items were noted:

- Because many other colleges don’t have an infant day care center, it might position the College uniquely relative to others competing to recruit faculty

Experiences at other places:

- Liabilities of the situation might “kill” the idea, just as it did at Hewlett Packard
- Storage Tek did implement a day care center, but they were not the low-cost provider. Nevertheless, they always had a waiting list.
- Auraria did something similar in which the students also participated, and it was well received.

WRAP UP

The next meeting will be held on Friday, 11 April 2003, followed by the Distinguished Engineering Alumni Awards Banquet that evening. It was agreed that the EAC and RDC would again meet together in the morning, separate for part of the afternoon, and then come back together in a wrap-up session. Strategic Planning will be a primary topic.

These minutes were prepared by Stein Sture, Araceli Warren, John Bennett, Rob Davis, and Terry Mayes, and they were edited by Rob Davis.

Members of EAC in attendance: Tom Broyles, Bill Caile, Art Dawson, Darrell Donly, Tim Fritz, Kay Gilles, Ray Hauser, Dan Hernandez, Gary Jacobs, Jon Liebman, Peter Mannetti, Vern Norviel, Chuck Robertson, Kristy Schloss, George Sissel, Dave Weiss; *Ex Officio:* John Bennett, Rob Davis, Terry Mayes, Stein Sture

Members of RDC in attendance: Enid Ablowitz, Gary Anderson, Hans Brunner, Duane Chesley, Mike Davis, Lew Frauenfelder, Clif Harald, Nan Joesten, Karl Larson, Barbara Lawton, Dan Marcek, Jim McAnally, Lanny Pinchuk, Dave Richmond, Con Sawyer, Greg Smith,

Invited guests in attendance: Bob Krebs (Thelen, Reid & Priest LLP) and Kevin Coyne (Sun Microsystems).