

Engineering Technology Industry Council
Meeting held March 27, 2002 at the CAPITAL Center

In Attendance:

Ron Adams	OSU
Morgan Anderson	Intel
Bob Broeg	WOU
Dave Brown	Tektronix
Jim Chadney	WOU
Jim Craven	AEA
Joyce Cresswell	Saturday Academy
Bruce De Young	OSU extension
Sarah Douglas	UO
Martha Anne Dow	OIT
Mike Driscoll	PSU
Bob Dryden (<i>by phone</i>)	OUS
Charmagne Ehrenhaus	OCATE
Ron Geason	OUS
Michelle Girts (<i>by phone</i>)	CH2M Hill
Joseph Graf	SOU
David Hackleman	Hewlett-Packard
James Hook	OGI/OHSU
David Johnson	UO
Jim Johnson	
Dawn Larson	OGI/OHSU
Gary Lietke	OUS
Dick Lytle	OMSE
Amy McKinley	OIT
Pam Moore	LSI Logic
Steve Pratt	ESCO
Wally Rhines	Mentor Graphics
Mark Tennant	Xerox
Skip Rung	
Bruce Schafer	OUS
Bill Scott	OECD
Vicki Scott	OMSE
Ed Thompson	OGI/OHSU
Michele Vitali	OUS
Larry Wade	SAO
Zia Yamayee	University of Portland

Wally Rhines, Council Chair, opened the meeting by asking for approval of the March 1, 2002 meeting minutes. Motion was made, seconded and approved.

Recommendation on 2X/Top Tier budgets

Bob Dryden gave an update on the budget cuts dictated by the recent special session of the Oregon legislature and the Governor: 7% in the 2X Budget and 52.5% in the Top Tier Budget. Bob recommended the cuts be implemented on an across-the-board reduction in the corresponding line items for the current biennium. He also recommended that the Research RFP and Pre-College RFP process continue their allocations up to the revised 93% level. Bruce Schafer presented a spreadsheet summarizing Bob's recommendations. The presentation and associated spreadsheet can be found at <http://www.oregonetic.org/BudgetReductionMarch2002.pdf> and <http://www.oregonetic.org/eticbudred6.pdf>

By unanimous vote, the decision was made to allocate the funds as Bob recommended.

Scorecard Presentations

The following 2X Plan Scorecards were presented and can be viewed at http://www.oregonetic.org/investment_indicators.htm

- University of Oregon (CIS) -- Sarah Douglas
- Southern Oregon University -- Joe Graf
- OMSE -- Dick Lytle

Strategy Name for 2003-2005

Wally Rhines presented the list of possible monikers distilled by the committee members. The strategy names center around three basic themes for merging the goals of quantity and quality, with variations of each theme presented.

1. Growth through Excellence
 - *"Growth through engineering excellence"*
 - *"Economic growth through engineering excellence"*
 - *"Knowledge economy growth through engineering excellence"*
2. 2X#1
 - *"2X#1 - Growing Oregon's #1 economic sector by doubling engineering graduates and creating nationally ranked #1 departments, programs, and engineering colleges."*
 - *"2X#1 for Oregon's economic growth"*
 - *"2X#1 for Oregon's #1 economic growth driver"*
3. Partnerships
 - *"Growing Oregon's Economy through Engineering Excellence" (GOETEE)*
 - *"Partnership for Engineering Growth through Excellence" (PEGE)*

A brief discussion followed, and it was suggested that the simpler the name, the better. Wally took an informal vote of the entire room that yielded the following:

- Theme #1 -- 3 votes
- Theme #2 -- 16 votes
- Theme #3 -- 8 votes

Wally said he would follow up with a specific recommendation that fits the second theme.

2003 – 2005 Proposals

Wally explained that the members had reviewed and finalized the metrics that today's proposals were based on. A principal area of controversy had been the national ranking of programs, and the council has stood firm on that metric. He further clarified that the intent was to budget for continuation of 2X but to open the door to investment opportunities from all schools that would achieve top-ranked excellence goals. There had been some recent confusion regarding whether the budget guidelines were meant to signal a change in ETIC philosophy from a "venture capital" model to a model where ETIC invests in programs on a continuing basis, adjusting their budgets up and down by percentages from one biennium to the next. Wally confirmed that they are not changing the philosophy. The

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venture capital model will continue to be used but budget guidelines will be used to encourage significant growth in programs focused on improving excellence and less growth in programs focused on capacity improvement.

Each institution presented their two-page proposals using the following metrics:

Total research expenditures per year
Average GPA of incoming freshmen
Average SAT/ACT percentile of incoming freshmen (2)
Average GRE percentile of incoming graduate students (2)
Pass rate of Fundamental of Engineering (3)
Women entering ECS programs (4)
Women graduating from ECS programs (5)
Minorities entering ECS programs (4)(6)
Minorities graduating from ECS programs (5)(6)
ECS undergraduate student credit hours
ECS bachelors degrees granted
ECS graduate student credit hours
ECS graduate degrees granted
National ranking of <program or department> (7)
National ranking of <college>
Pre-college contact hours (8)
Licenses sold (9)
Notes:
(2) Of those submitting scores
(3) As a percent of those taking it for the first time
(4) As a percent of all those entering
(5) As a percent of all those graduating
(6) Racial and ethnic minorities who are US citizens or permanent residents
(7) Forecasts for multiple programs and departments are encouraged
(8) Pre-college students participating in pre-college engineering, technology, computer science, math and science programs
(9) Patent licenses or other royalty-generating intellectual property licenses granted to commercial entities

Two-page proposals were presented and submitted by the following. The final proposals can be viewed at http://www.oregonetic.org/future_investments.htm.

Oregon State University. Ron Adams presented OSU’s proposal which focused on two goals: 1) building a top-25 engineering college by the year 2010; and 2) helping fill the pipeline with pre-college Oregonians passionate about careers in engineering and technology. To do this they need \$14 million in public funding and will match with \$28 million private funding. OSU will continue to build capacity for increased graduate degrees with commitments for 545 per year by 2005 and will become one of the nation’s top-30 in number of engineering bachelor’s degrees. As part of their results, in 2006, OSU should be listed by *U.S. News and World Report* as one of the top schools of engineering (i.e. in the top-50). An additional \$5 million public investment (i.e. \$19 million total) for the 2003-2005 biennium will keep OSU on track to reach the top-25 by 2010.

Bruce DeYoung with the OSU Extension presented their second goal for the pre-college program. They are requesting \$440,000 public plus \$80,000 private funding to provide non-formal education for rural 4-H and other youth in areas of technology. Their efforts will benefit rural 4-H youth and other youth in pilot counties with flagging natural resource dependant economies in Eastern, Central,

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Southern and Coastal regions of Oregon. OSU Extension will collaborate with Saturday Academy to boost ASE (Apprenticeships in Science and Engineering) program and partner with OIT for presenting a 4-H Youth Summer Camp (also covered in Saturday Academy's proposal).

Western Oregon University. Bob Broeg, Chair of WOU's Computer Science Division, presented a proposal focused on their desire to enhance the existing program and develop their software engineering sequence to a program of national recognition. Their senior (two-quarter) software engineering sequence requires a group project for an off-campus end-user that utilizes the latest tools and technology from industry. They wish to build on the success of this senior sequence to enhance their software engineering program and made the following requests:

- Pursue ABET accreditation
- Incorporate more adjunct industry faculty
- Expand current industry speaker program by offering honoraria
- Give release time to faculty members to be industry liaisons
- Continue collaboration with CSTA

To do this they need \$150k in public funding and will match with \$50 million private funding.

Eastern Oregon University. Phillip Creighton was unable to attend the meeting. Martha Anne Dow of OIT stated EOU's needs would be covered in her proposal.

Oregon Institute of Technology. Martha Anne Dow presented OIT's proposal, stating that OIT was to become a premier institute. Their proposal is focused on three goals: 1) Top Tier support for the Oregon Renewable Energy Center; 2) increasing statewide access by projecting courses via web and video and developing certificate programs through collaboration with EOU; and 3) providing high quality, pre-college educational opportunities throughout Oregon (covered in Saturday Academy's proposal). To do this they need \$2.2 million in public funding and will match with \$820k in private funding. As part of her metrics summary, she stated it is difficult for OIT to find national rankings without having a graduate program. A more detailed proposal was submitted electronically following the meeting and has been posted on the ETIC web site.

Saturday Academy. Joyce Cresswell presented a joint proposal of PSU/Saturday Academy, OSU Extension Service and OIT's Pre-College Programs with Bruce DeYoung and Amy McKinley. Under this proposal the three collaborating institutions will use existing infrastructure and programs to deliver engineering and technology education to a larger and more geographically diverse base of Oregon students. Each program will assist the others in identifying and referring students to the appropriate programs.

Joyce confirmed that to avoid double counting, their metrics and requested investment of \$1.36 million would be reported through the host university proposals. As part of their proposal, they recommended that metrics for the number of students served, contact hours and number of counties served be added.

Amy expanded on OIT's programs that target young women and their collaboration to develop a Saturday Academy satellite program in Klamath Falls. Bruce expanded on how they would like to bring their programs in line through the 4-H outreach program, including mentoring in pilot rural counties and 4-H youth summer technology camp at OIT.

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Portland State University. Mike Driscoll presented PSU's proposal for investments in faculty and programs to continue to attract a diverse group of students and get their graduate program ranked by *US News* in 2004. He presented their plan to build new programs in four areas to meet regional needs:

- Integrated Circuit Design and Test
- Electronic Packaging
- Wireless Networks
- Seismic Testing and Applied Research

Mike outlined their proposed ranking methodology of identifying industry experts in each field and using funds to implement their suggestions. They are requesting \$8 million in public funding (plus \$440k for Saturday Academy portion), which will be matched with another \$8 million in private funding. (Note: After the meeting, PSU submitted a revised proposal that added a Center for Solar Cell Excellence together with an associated \$0.5 million increase in both ETIC funding and private match. This revised proposal has been posted on the ETIC website.)

Southern Oregon University. Joe Graf, Dean for the School of Science, presented SOU's proposal for enhancement of Engineering, Computer Science and Multimedia, and Pre-college Science Programs at SOU. Investments in faculty will allow faculty more time to recruit graduate students, teach additional graduate courses, supervise graduate students, and increase scholarly and grant activity in the department. Additionally, SOU expects to be able to recruit and retain more students, resulting in a doubling or tripling of the transfers to other institutions. They also plan to recruit more women to sciences by adding an AWSEM seminar and instituting a summer symposium for pre-college students. To do this, they are requesting \$535k in public funding and will match with \$100k in private funding.

University of Oregon. Sarah Douglas, Computer Information Science Chair, presented UO's CIS proposal and Dave Johnson, Director of Material Science Institute, presented the MSI proposal.

CSI's goals include reaching 2nd quartile NRC ranking of computer science programs and providing additional undergraduate capacity as UO expands. Their plan is to improve excellence in the networking initiative and distributed informatics initiative. They will improve the undergraduate experience by expanding the internship and diversity programs. To do this they are asking for \$2.104 million in public funding and will match with \$587.6K in private funding. They are ranked 61 by NRC and plan to be ranked 48 by 2009.

MSI's proposal focuses on their goals of 1) developing nationally recognized research teams; 2) achieving national prominence in the training of materials chemists and physicists; and 3) establishing a regional center containing outstanding analytical facilities with world-class staff. Achieving these goals will enable them to compete for one of 25 MRSEC grants from NSF. They are requesting support for two existing programs (graduate internship program and CAMCOR) and for the creation of a new undergraduate materials program. To achieve their goals, MSI must collaborate with Oregon industries. To do this they are asking for \$7.47 million in public funding and will match with \$4.4 million in private funding. Dave stated the university has committed to pick up the faculty positions that they are requesting funding for after this biennium. There was some discussion regarding the way they are set up as an institute rather than as a department, affecting their ability to be nationally ranked.

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OGI School of Science & Engineering/Oregon Health & Science University. James Hook, chair of the Computer Science & Engineering Department, presented OGI/OHSU's proposal. Jim stated that Oregon is behind the nation in investing in research. OGI's computer science program ranks 42 in the National Academy of Science rankings. The theme of their proposal was programs for configuration and control of ubiquitous information architectures. Faculty is their key resource.

To do this they are asking for \$6.8 million in public funding and will match with \$6.8 million in private funding.

There being no further business, the meeting was adjourned.