

# **Structure of AEED Powerpoint Presentation – DRAFT**

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## **1) AEED goal – identify 2-5 areas for Board to address, which:**

- a) Show a measurable return on investment over 20 years, with interim results at earlier intervals
- b) Collectively, touch every part of Oregon
- c) Build on existing or emerging momentum
- d) Draw on and reinforce excellence in academic programs
- e) Offer opportunities that are exciting and easy to conceptualize

## **2) AEED reviewed 10 opportunity areas; evolved into 5 action categories**

- a) Clear program excellence, well-coordinated initiatives already established; Board's role is to offer support and barrier removal
  - i) Engineering and information technology; ETIC
  - ii) Nanoscience and microtechnologies; ONAMI
- b) Clear program excellence with potential economic development opportunities but not currently coordinated initiatives
  - i) Sustainability, renewable energy, natural resources
  - ii) Neuroscience & biomedical research
  - iii) Healthcare workforce
- c) Potential for collaboration with other postsecondary institutions; needs an organizational structure (e.g., consortium, inter-institutional work group) with broad membership across sectors to more clearly identify program excellence and initiatives
  - i) K-12 education
  - ii) Leisure, recreation & sports
- d) Opportunity area reviewed but no further Board action recommended for 2005-07
  - i) Arts and creative services
  - ii) Keeping top students in Oregon
- e) Area needs further development
  - i) China and the Pacific Rim

## **3) Six opportunity areas met AEED goals:**

- a) Engineering and information technology (ETIC)
- b) Healthcare workforce
- c) K-12 education
- d) Neuroscience and biomedical research
- e) Nanoscience and microtechnologies (ONAMI)
- f) Sustainability combined with Natural Resources

## **4) Areas with a human capital/workforce development focus**

- a) ETIC
  - i) ETIC – well established model for partnership with business and industry
  - ii) Focus on workforce development – goals for degree production
  - iii) Targeted funding for achievement of goals (\$21.7 million state GF in GRB for 2005-07)
  - iv) Align ETIC with K-12 goals for student prep in science, technology, and math

- b) Healthcare workforce
  - i) Current initiatives: Gov's task force (needs assessment); SB 882; connection to Gov's Workforce Initiative
  - ii) Creation of Health Information Center (?): clearinghouse; data development; recommendations on statewide initiatives
  - iii) Coordination among OUS, OHSU, community colleges, private colleges and proprietary schools
  - iv) Development of an ETIC model with measurable goals, targeted funding
  - v) What are the barriers?
- c) K-12 education
  - i) More collaboration among OUS campuses needed
  - ii) Proposal from subcommittee for a virtual center for research, evaluation, and policy analysis
  - iii) Bring these issues and the subcommittee report into the Joint Boards planning effort

## 5) Areas with a research and development focus

- a) Neuroscience/biomedical research
  - i) Long-term potential (10 or 20 years)
  - ii) Strong UO/OHSU collaborations have made Oregon one of top states in this area; importance of Zebrafish International Resource Center
  - iii) Neuroscience research strengths in signal transduction, hearing and vision research, cognition, behavioral neuroscience
  - iv) Biomedical research strengths in cancer research, fertility, obesity
  - v) With OGI and increasing involvement with ONAMI, potential in biosensors and robotics
  - vi) Barrier: VC interest (in Oregon) to carry research through to commercialization
- b) ONAMI (*move into focused presentation – Skip Rung*)
  - i) Overall opportunity and potential of ONAMI for every cluster in Oregon, with a special emphasis on natural resources and sustainability (even if those are not ONAMI's first projects)
  - ii) ONAMI's progress to date
  - iii) Importance to Oregon of maintaining the focus on and support of ONAMI rather than moving on to a new area before ONAMI is sufficiently developed and supported (which Oregon tends to do)
- c) Sustainability, natural resources (*move into focused presentation – Susan Bragdon*)
  - i) Definition of sustainability – what it is and what it is not
  - ii) Oregon's assets; comparison to other states
  - iii) Importance of ONAMI as underpinning to new opportunities
  - iv) Where the opportunity areas are

## 6) Recommendations

- a) Opportunity areas
  - i) Support ONAMI
  - ii) Develop ONAMI/sustainability/natural resource connections
  - iii) Support ETIC
  - iv) Foster and support collaborations in healthcare workforce area (Gov, OSBHE, CCs, professional consortia, etc.) and move toward an ETIC model
  - v) Bring K-12 subcommittee ideas into Joint Boards planning

- vi) Neurosci/biomed research (OHSU and UO) – address VC interest issue through Oregon INC
- b) Organization and structure
  - i) Move AEED economic development discussions and initiatives into Oregon INC
    - (1) What does Oregon INC do?
      - (a) Established through SB 838 (2005) to supersede OCKED; staffed by OECDD
      - (b) Moves ONAMI under Oregon INC
      - (c) Requires statewide plan by June 2006 for tech transfer agreements, signature research centers, and seed and start-up capital investment
    - (2) Need to define clear leadership role for OSBHE and OUS within Oregon INC
  - ii) OUS inter-institutional structures
    - (1) Explore models for providing research commercialization support for small universities
    - (2) K-12 virtual research, evaluation and policy analysis center
    - (3) Inter-sector task force in leisure/recreation/sports area
    - (4) Other?
  - iii) OUS/CC partnerships in development of these opportunity areas
    - (1) Healthcare workforce
    - (2) Sustainability
    - (3) K-12 education
- c) Process and regulation
  - i) Tech transfer issue
  - ii) VC interest – valley of death
  - iii) Other?
- d) OSBHE long range planning
  - i) Address nature of research function at all OUS campuses
  - ii) Implications for capital construction projects, facilities design
  - iii) Communication of research to broader public
  - iv) Fostering innovation within OUS
  - v) Reinforce idea that investment in higher ed critical to Oregon’s economy

## Handouts

### A. The Innovation Cycle

### B. Examples of AEED Concepts in Action

1. Inter-institutional and inter-disciplinary collaboration fosters innovation  
*Examples: UO and OHSU neurosciences work flowing from zebrafish center; cross disciplinary work at UO between neurosciences and education*
2. Healthcare workforce opportunity area provides opportunities for cross-sector collaboration  
*Example: OIT student with experience at CC, OIT, and heading toward OHSU*
3. Cutting edge research takes place in small universities as well as the designated research universities  
*Example: Greg Jones' work at SOU in climatology and viticulture*
4. New facilities can foster innovation and collaboration  
*Example: EOU's new science center*
5. K-12's economic development implications should be a part of current Joint Boards planning  
*Example: Work at WOU/Teaching Research, UO*
6. The connections between nanoscience and sustainability/natural resources offer a critical development niche for Oregon and significant commercial opportunities  
*Example: Sensing device for use in detecting forest fires (or other similar example)*

### C. Update of OUS campus initiatives in the 6 selected opportunity areas

### D. Summaries of selected subcommittee reports:

1. Nanoscience and microtechnologies
2. Sustainability
3. Natural Resources
4. Healthcare workforce
5. K-12 education