



OPAS
Strategic Plan and
Policy Option Package

Bruce Schafer
May 5, 2006

Oregon Pre-Engineering & Applied Sciences Strategic Planning Summit



OPAS Steering Committee

William Becker	Director, Center for Science Education, Portland State University
Susan Boyanovsky	Instructional Programs Specialist, Comm. Colleges & Workforce Develop.
Aubrey Clark	Community Education Relations Specialist, Intel Corporation
Steve Day	Science Specialist, Beaverton School District
Don Domes	Technology Instructor, Hillsboro High School
Van Eden	Academic Programs Manager, Microsoft
Larry Flick	Chair, Dept. of Math & Science Education, Oregon State University
Scott Huff	Dean of Instruction, Portland Community College
Don Kirkwood	Computer Science Instructor, North Salem High School
Dick Knight	Chairman, Board of Advisors, Saturday Academy
Dave Krumbein	Instructor, Blue Mountain Community College
Diana LaBoy-Rush	President, Columbia River Section, Society of Women Engineers
Ben Manny	Director, Wireless Networking Research Lab, Intel Corporation
Ron McGuire	Technology Instructor, Roseburg High School
Dale Merrell	Technology Instructor, CAPITAL Center Technical High School
Gary Naseth	Associate Provost, Oregon Institute of Technology
Ginger Redlinger	Education Program Specialist, Oregon Department of Education
Roger Rennekamp	Professor, Department Head & State 4H Leader, Oregon State University
Skip Rochefort	Professor, OSU Engineering
Diane Saunders	Director of Communications, Oregon University System
Bruce Schafer	Director, Industry Affairs, Oregon University System
John Tortorici	President, Software Association of Oregon
Jim Troisi	Senior Software Manager, IBM
Hyacinth Williams	Director, Math, Science, Business and Technology, Columbia Gorge CC
Michal Young	Professor, Computer Science Department, University of Oregon,



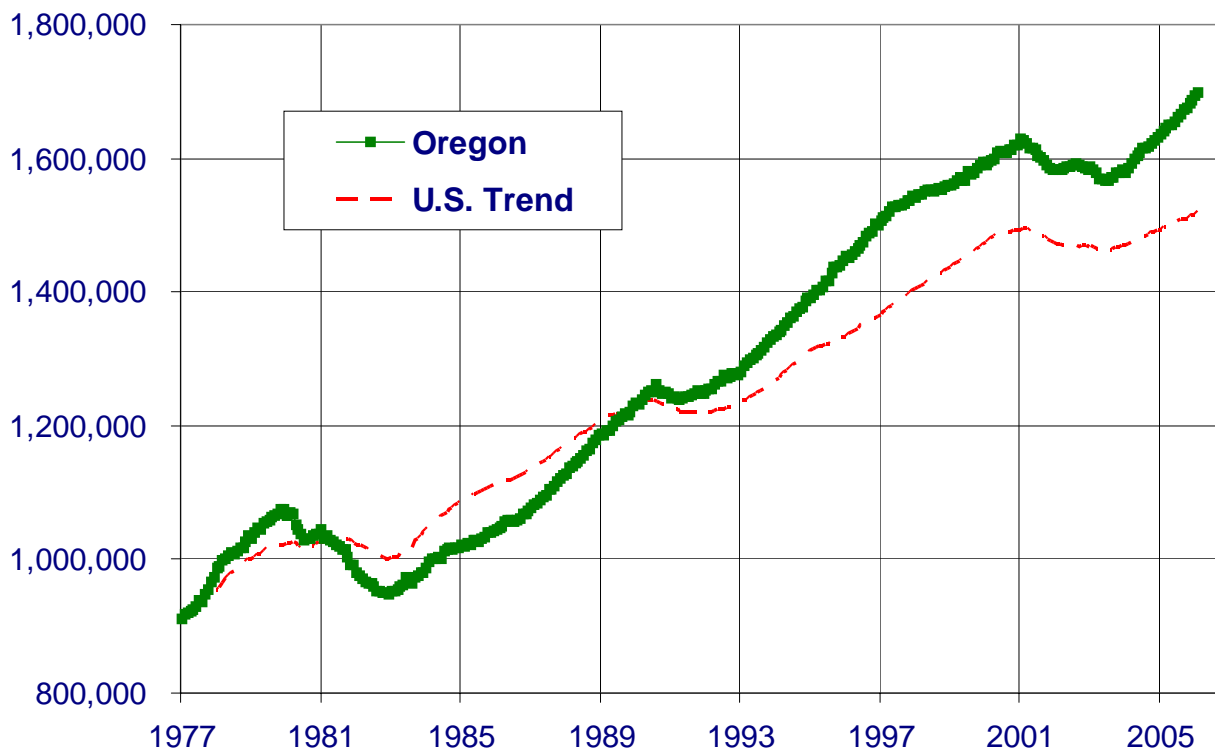
Why Pre-Engineering?

- Insight into careers
- Adds relevance – opportunity to play the game – increasing motivation
- Provides concrete examples & hands-on – increasing depth of understanding & retention
- Technical literacy for a technical society
- Dovetails with efforts to enhance math & science
- Three modes
 - Curricular
 - Integrated with math and science
 - Electives
 - Co-curricular



Oregon has added jobs faster than the nation over the long-term . . .

Oregon and US Employment Trends * 1977 to Current: US Trend Indexed to January 1977



















* Seasonally Adjusted

Source: Graham Slater, Oregon Employment Department, 3/24/06



Engineering & Applied Science Ideal Condition in Oregon

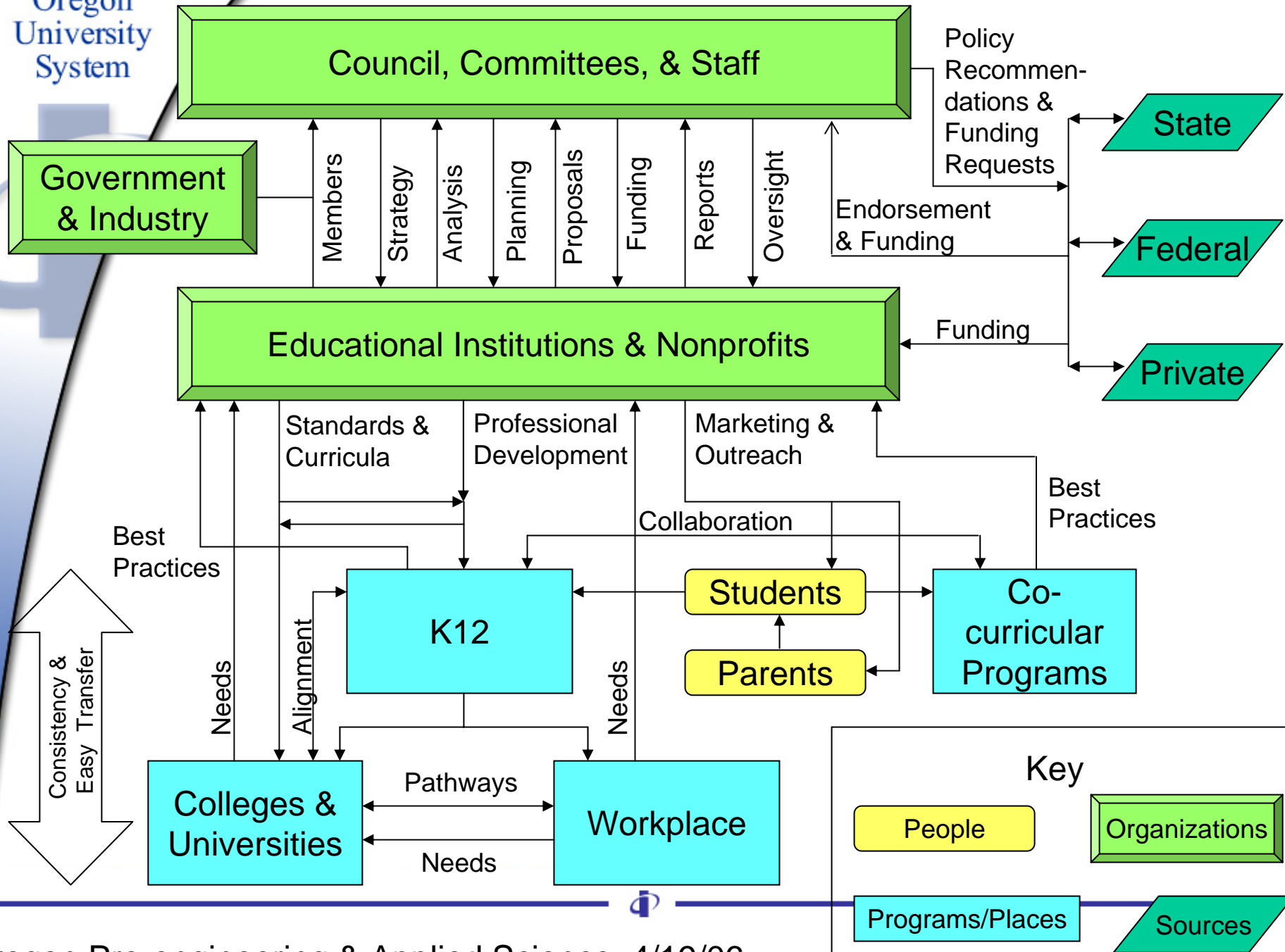
	Motivate	Retain	Prepare	Credential / Transfer
Elementary				
Middle				
High Schools				
Colleges				



OPAS

Oregon Pre-Engineering & Applied Science

- Steering committee meeting monthly
 - Representatives from universities, community colleges, ODE, CCWD, K12, industry & professional associations
- Subcommittees continuing the work started at the summit
 - May adjust/ enlarge on summit missions & recommendations
 - Most committees have had one or more meetings
 - Staff support, webpages & email lists





Opportunities for Enhancement

- Standards
- Curricula
- Assessment
- Professional Development
- Marketing & Outreach
- Collaboration between
 - Levels
 - Institutions
 - Curricular and Co-curricular
- Degree & Career Pathways

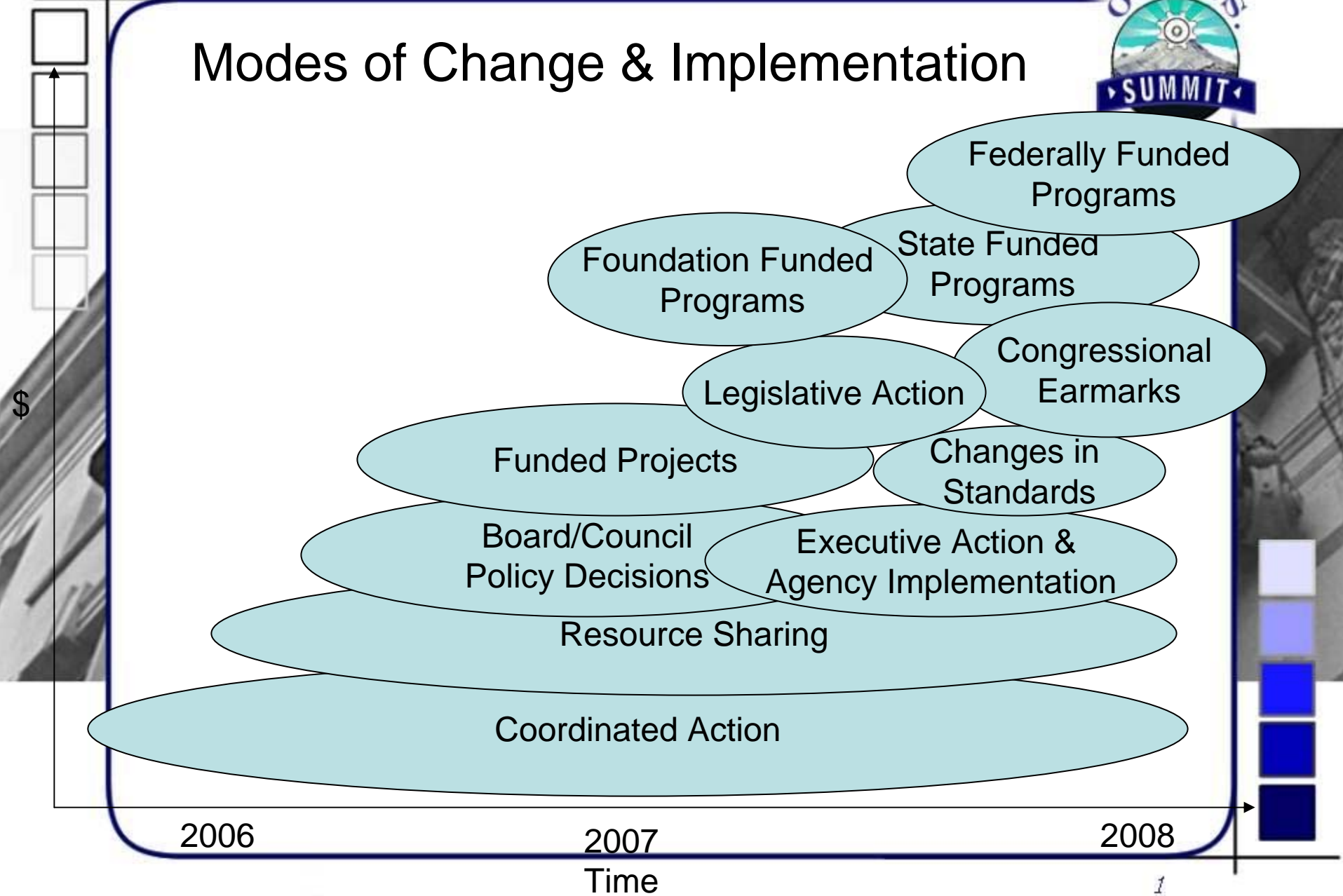


Next Steps

- Develop measurable outcomes
- Work with subcommittees to turn Strategy into action plans
- Work with partners to implement
- Seek additional resources from state, federal, and private sources



Modes of Change & Implementation



2006

2007

2008

Time



Policy Option Package 2007-2009 Biennium

- \$100K: Staff support
- \$1M:
 - Needs analysis
 - Curriculum & alignment analysis
 - Standards development, leveraging best practices
 - Curriculum acquisition and development
 - Professional development
 - Pathway development
 - Pilot deployment
 - Marketing & outreach