



A Partnership for Innovation and Competitiveness: A Proposal from Oregon's Research Universities

Overview

Oregon realizes substantial returns on modest investments by linking its four research universities (Oregon State University, University of Oregon, Portland State University, and Oregon Health and Science University) with established industries and new businesses. Over the past eight years, the Oregon Innovation Council (Oregon InC) and its three Signature Research Centers (SRCs) focusing on nanoscience (ONAMI), biotechnology (OTRADI), and environmental technology (BEST), have worked with the universities to achieve a return of seven dollars for every dollar invested by the Oregon Legislature, through research grants, new startup companies, and venture capital.ⁱ In addition, an increasing share of the universities' \$800M of annual research expenditures come from major collaborative, interdisciplinary grants, over \$10M each, involving two or more of the schools.

When Oregon InC was launched, few other states had comparable programs, and federal funding was more readily available. Oregon's economic success is now threatened by competition from other states building similar but larger strategic initiatives linking economic development with research and innovation. Washington,ⁱⁱ Arizona,ⁱⁱⁱ Ohio,^{iv} and others have out-invested Oregon in the past decade, buffering their economies from the latest recession, and increasing their success rates for federal grants. However, by upgrading our telecommunications infrastructure, strengthening collaboration, expanding business incubation capabilities outside Portland, and taking advantage of Oregon-based computing expertise from companies like Intel and IBM, we can leapfrog these other states and recapture a leadership position in innovation.

Objective

Oregon's research universities, Oregon InC, and Oregon-based companies propose a "Partnership for Innovation and Competitiveness" that will position Oregon to more effectively use scientific and technological discovery to grow new businesses, preserve the competitiveness of our existing manufacturing base, and participate in the shaping of entirely new industries. This initiative includes five components:

1. **Networking:** Enhance high-speed computer networking capacity and associated expertise across the state to allow unprecedented sharing and analysis of huge data sets ("Big Data"), which are transforming industries ranging from drug development to energy generation to resource management.
2. **Incubation:** Add business incubation facilities in Corvallis and Eugene to those near PSU and OHSU, thus launching a distributed network that can increase the success of startup companies derived from university-based research statewide.
3. **Competitiveness:** Make Oregon's extensive metals industry more competitive through stronger research and training ties to university faculty and students.
4. **Efficiency:** Use the IT industry's latest analytics techniques to help manufacturing companies design more efficient and cost-effective processes and supply chains.
5. **Partnerships:** Better support private sector partners and job creation by connecting the five Regional Solution Centers to each other and the universities.

Partnership

To achieve these objectives, the coordinated proposal consists of three initiatives:

1. **Research Collaboratory:** Construct a high-speed computing network in Oregon, modeled after those in Washington and Ohio, to allow university researchers and their private sector partners to address society's largest and most complex problems, leading to greater grant success and the launching of new start-ups.
2. **Accelerator & Innovation Network:** Build the Oregon Regional Accelerator and Innovation Network (OREGON RAIN) in the South Willamette Valley, in order to coordinate and leverage the research activities of UO, OSU, and the three SRCs to advance the formation, growth and retention of technology-based companies outside of Metro Portland. RAIN will also take advantage of the Regional Solution Centers, planned new IT infrastructure, and previous municipal investments.
3. **Metals Initiative:** Expand the Oregon Metals Initiative to provide better linkages between regional industry and university researchers, while also supporting the development of highly instrumented, computationally enhanced manufacturing (another potential application of "Big Data"). These steps will also strengthen a \$60M proposal bid for federal funds to establish an Oregon-based node in the new National Manufacturing Institute Network.

Research Vice Presidents selected these projects because they collectively offer the fastest path to the creation of high wage, technology-related jobs in Oregon, harness the collective power of our public universities, and have the greatest potential to leverage external dollars for Oregon. The investments proposed herein have been scaled to meet time-sensitive needs with an initial commitment of \$15.5 million in the 2013-15 biennium.

Resources

The Oregon Business Development Department's proposed budget includes a policy option package earmarking resources for the aforementioned projects as follows:

- **Oregon Research Collaboratory:** \$4.6M (\$4.0M in capital and \$0.6M in operations) to set up initial demonstration projects linking the new OHSU-PSU-OSU Collaborative Life Science Building with PSU's Engineering College; and the OSU and UO campuses with their new business incubation facilities.
- **Regional Accelerator & Innovation Network:** \$7.5M (\$2.5M operations and \$5.0M capital) for the 2013-2015 biennium including \$5M for facilities acquisition and improvement in Eugene and Corvallis, \$2M for staffing, including student interns, and \$0.5M for business program development.
- **Oregon Metals Initiative:** \$3.4M (\$2.4M operations and \$1.0M capital) in the 2013-2015 biennium, to hire metals-related faculty, launch corporate-driven academic research projects, and upgrade testing equipment at the state universities, all of which could increase the competitiveness of the \$60M Manufacturing Institute proposal as well as strengthen regional industries.

ⁱ <http://www.oregon4biz.com/assets/docs/13-15InnoPlan.pdf>

ⁱⁱ <http://www.pnwgp.net/>

ⁱⁱⁱ http://www.flinn.org/file/a_bridge_crossed.pdf

^{iv} http://www.sri.com/sites/default/files/brochures/final_oh_impact_exec_sum_sri.pdf