

## **OSU-Cascades Innovation Center for Entrepreneurs Executive Summary**

The Innovation Center for Entrepreneurs (ICE) is a project that provides the space needed for OSU-Cascades to expand to a 4-year university in Fall 2015, and facilitates collaboration between faculty, students and entrepreneurs in Central Oregon. Because new facilities will not be available until Fall 2016 at the earliest, OSU-Cascades needs to convert space in its Graduate and Research Center to accommodate faculty and programs by Fall 2015. This project will co-locate faculty and programs with training and incubator space for the private sector that fosters collaboration, enhances innovation, and spurs economic development in Central Oregon.

Central Oregon needs to diversify its economic base to provide living-wage jobs and lessen the impact of economic downturns. Emerging industries such as high tech, biosciences, and fitness and outdoor products are beginning to change the economic landscape of Central Oregon. However, existing industries need talented workers and training programs, and new start-ups need incubator and accelerator services to be successful. The ICE provides the infrastructure and services to meet these needs. Specifically, the ICE will:

- provide office space for OSU-Cascades business and computer science faculty;
- offer shared office space, wet-lab space, and specialized and general instrumentation and equipment;
- incubate ideas and firms at stages of start-up, proof-of-concept (POC), and beyond;
- generate collaborations among business owners, academic researchers, and university students;
- provide classrooms for professional development, high-tech and bioscience curricula, and industry events;
- seek funding, investment, and revenue opportunities;
- produce graduates that are regionally employable and entrepreneurial-minded.

The remodel of space will convert 8,000 sf in the Graduate and Research Center into the following:

- 80- and 45-student classrooms (the 80 seats are convertible into a 120 person event space);
- office space for OSU-Cascades faculty and private sector leases;
- shared conference room, work room, and kitchen;
- bioscience space, including a shared instrumentation room, an open-format shared science laboratory, and a separate lab space with a lockable door.

Curricula developed for the ICE programs will include overlapping courses that are tailored for OSU-Cascades students, industry workforce personnel, and emerging business owners. Students will take a personal stake in prototyping a product or service, assessing market demand, identifying the customer base, identifying and testing a sustainable financial plan, and modifying the product per customer needs. Faculty and industry experts will collaborate across disciplines to teach the process of developing a product prototype, creating a business plan, seeking seed funding and launching a startup.

The project will provide infrastructure and program support to create or retain 100 jobs in the traded-sector by 2025. In addition, construction will create nine jobs per \$1 million in capital investment or more than 10 jobs.

Total project costs are \$1.93 million with an OSU-Cascades match of \$200,000 and possible OTRADI match for the biosciences incubator in the range of \$250,000 to \$400,000

Investments will occur immediately upon funding and programs will be in place by Fall 2015. Impacts will extend well into the future from OSU-Cascades graduating students, faculty research, start-up business success, workforce training, and bioscience research and development.

## OSU-Cascades Innovation Center for Entrepreneurs

### The Need

The recent Great Recession served as a conspicuous reminder that regional solutions must be installed in Oregon to reduce vulnerability to national and global economic downturns. This is especially critical to regions like Central Oregon, where geographical remoteness presents inherent challenges in establishing, and to some extent, sustaining and expanding industries. The region's vulnerability to these downturns is also hampered by its need for more economic diversity, improved proportion of higher-wage jobs, and an enhanced business infrastructure to better recruit, develop, and sustain technology-based entrepreneurs, investment, and workforce-ready employees. Emerging industries within Central Oregon, however, are now poised to change this economic landscape. Specifically, a number of Central Oregon firms in high-tech, biosciences, health & fitness and outdoor products are developing a strong foothold in the region, collectively bringing the promise of a more sustainable economic base.

There is an important need, however, for regional solutions to support the momentum gained within the local industries so that they can remain viable economic assets for the future of Central Oregon. As Oregon State University-Cascades becomes Central Oregon's premier four-year university, it is critical that the institution is a part of the support needed. In the near term, entrepreneurs in High-Tech and Bioscience will reasonably anticipate the local university to produce workforce-ready graduates, as well as to provide unique educational opportunities to improve the skill sets of their existing employees. Likewise, industry leaders and investors will instinctively seek entrepreneurial-minded talent and innovative technologies. External entrepreneurs considering Central Oregon for high-tech and bioscience business start-ups will also look to the region's university for additional key start-up resources, such as low-cost, shared office and laboratory space, rentable instrumentation, and expertise and mentorship. With its established focus and expanding programs in business, computer science, and the life sciences, OSU-Cascades has the potential to provide such support to these industries.

OSU-Cascades was originally scheduled to open its new campus in Fall 2015, but has encountered land use issues that will delay the campus opening. However, OSU-Cascades is still committed to starting the 4-year university in Fall 2015 and welcoming the first class of freshmen and sophomores. To do this, some faculty, staff, and students will have to be relocated from the leased facility on COCC's campus to OSU-Cascades' Graduate and Research Center. Our proposal is to move Business and Computer Science, and to develop space and programs that will provide opportunities to collaborate with start-up companies that could be co-located in our facility. Specifically, we are seeking funding to transform 8000 square feet of existing space in the Graduate & Research Center into an Innovation Center for Entrepreneurs (ICE). This center will act as a catalyst for growth in the High-Tech and Bioscience industries by establishing facilities and accompanying programs for the following objectives:

- providing office space for OSU-Cascades business and computer science faculty;
- offering shared office space, wet-lab space, and specialized and general instrumentation and equipment;
- incubating ideas and firms at stages of start-up, proof-of-concept (POC), and beyond;
- generating collaborations among regional business owners, academic researchers, and university students;
- providing classroom space for professional-development courses, unique High-Tech and Bioscience curricula, and industry-specific events;
- creating mentorship connections between industry leaders, academic researchers, and university students;
- promoting private, government, and corporate strategic partnerships
- seeking funding, investment, and revenue opportunities;
- producing post-baccalaureate graduates that are regionally-employable and/or entrepreneurial-minded;

The regional recognition of the need for ICE is illustrated by two strong examples. The first is the recent announcement that the region's first high-tech accelerator space named "1001 Emkay" and located in Bend, will open in Spring 2015. This space will provide infrastructure for new firms that are beyond POC and have the need for space to grow their technology and expand their staff. It will therefore cater to firms that have already acquired seed funding or have existing internal streams of revenue, but it will not serve as an incubator of concept-stage innovators. Rather, the ICE will serve that function in a strategic collaboration with 1001 Emkay.

The second example can be found within Oregon's Bioscience industry, where start-ups have specific needs in writing successful SBIR/STTR grants, understanding regulatory affairs, finding their first wet-lab space at low (or no) cost, and networking with C-level talent and mentors. In response to this need on a state-wide level, the Oregon Translational Research and Development Institute (OTRADI) created Oregon's first and only bioscience-specific business incubator in Portland, named the OTRADI Bioscience Incubator (OBI). The OBI opened in June 2013, was fully leased within six weeks, and continues to hold a waiting list for interested Bioscience start-ups. The overwhelming success of OBI, coupled to the well-known burgeoning Bioscience industry in Central Oregon, has also prompted recognition by OTRADI for the need for a small bioscience incubator in this region. As such, OTRADI is also a strategic partner of the Bioscience portion of ICE.

OSU-Cascades is uniquely primed for this endeavor and will greatly benefit from its implementation. ICE will not only serve the incubator functions presented above, but will also provide a unique function to the university that will attract faculty, students, and funding. For example, it is anticipated that through collaborative efforts born within ICE, unique curricula will be produced that differentiates OSU-Cascades from other universities. This is an extremely important goal for OSU-Cascades as it launches Central Oregon's first four-year university.

As ICE develops, OSU-Cascades sees the opportunity to expand the incubation space and industry focus to include outdoor products and health and fitness. The outdoor products industry may require specialized equipment and space for product development and testing. OSU-Cascades sees an opportunity to partner with the health and fitness industry on data collection, analysis or predictive analytics. There is a further opportunity to develop consumer-facing health or fitness based applications. This is the intersection between computer science and health.

*"Now perhaps more than ever, knowledge-based workers are the key for the emerging employment opportunities – both for established traded sector companies as well as newly formed business ventures. This is particularly true for pharmaceutical research and development, medical devices, software, electronics, unmanned systems (robotics, sensors, data) and renewable energy, which are all industry sectors that are gaining critical mass in the Central Oregon region. Without a sustained pipeline of graduates in these fields, the region cannot reach its full economic potential."* Roger Lee, Economic Development for Central Oregon (EDCO).

## **The Plan**

### *The Goal*

OSU-Cascades seeks to establish the Innovation Center for Entrepreneurs (ICE), a collaborative space housing both OSU-Cascades faculty and students, and private enterprise. This will be a space where OSU-Cascades will educate the next generation of exceptionally skilled and workforce-ready graduates in computer science, business administration/accounting/entrepreneurism, and biosciences, foster collaboration between private industry and higher education, incubate new High-Tech and Bioscience start-ups, and foster collaboration between students and faculty, and industry leaders, mentors, and entrepreneurs.

OSU-Cascades ICE, both the physical space and programs, will be designed to operate in collaboration with Bend Tech/1001 Emkay and in partnership with OTRADI. The ICE will be the first-ever high tech and biosciences incubator in Central Oregon, and will be the State of Oregon's second bioscience incubator.

### *The Physical Space*

OSU-Cascades will convert 8000 square feet within the Graduate & Research Center building into space designed to support the objectives of the incubator, as well as house OSU-Cascades business and computer science faculty. This will include instructional classrooms for coursework, workshops, and workforce training programs. For example, it is anticipated that the Oregon Bioscience Association's BioPro classes, which are currently taught in Bend at the behest of the region's Bioscience industry, would be well-suited for the ICE. In addition to instructional space, there will be areas for networking, competition, presentations, and development events. Adjacent to the classroom and event spaces there will be student and entrepreneurial open offices to encourage collaboration, a science laboratory with benches and storage for POC experiments, research and development, and initial product development, and shared space for supporting instrumentation and equipment.

Experiential coursework will be offered in new 80- and 45-student classrooms. The 80-student classroom will be tiered and convertible into a 130-person event space with Deschutes River views. The event space will be directly adjacent to a catering kitchen.

One-thousand square feet of space, sub-divided into three distinct areas, will be dedicated to the bioscience element of ICE. The areas include a shared instrumentation room, an open-format shared science laboratory, and a separate lab space with a lockable door. Open-office space will also be available. The lab infrastructure will be outfitted to accommodate the requirements of biosafety level 2 labs. It is estimated that the incubator will house up to three start-up biosciences companies at a time. It is also a goal to foster a community of entrepreneurial scientists who can collaborate, learn from one another, and develop ideas with the potential to impact human health.

### *The Curriculum*

Curricula developed for the ICE programs will include overlapping courses that are tailored for OSU-Cascades students, industry workforce personnel, and emerging business owners. The latter two are anticipated to be designed and conducted by regionally-recognized industry leaders and experienced entrepreneurs in conjunction with faculty. Workforce training programs, such as the BioPro courses offered by the Oregon Biosciences Association (OBA), will be designed to improve the skill sets of regional scientists. Such courses will be attractive to attendees that may have considerable experience, but seek to gain advantages in the industry. And while it is expected that employed personnel will want to take these courses, it is certain that residents of Central Oregon who are not currently employed will find these courses very beneficial for improving their employability. Many of these courses may also be applicable to OSU-Cascades students who are in their upper division coursework.

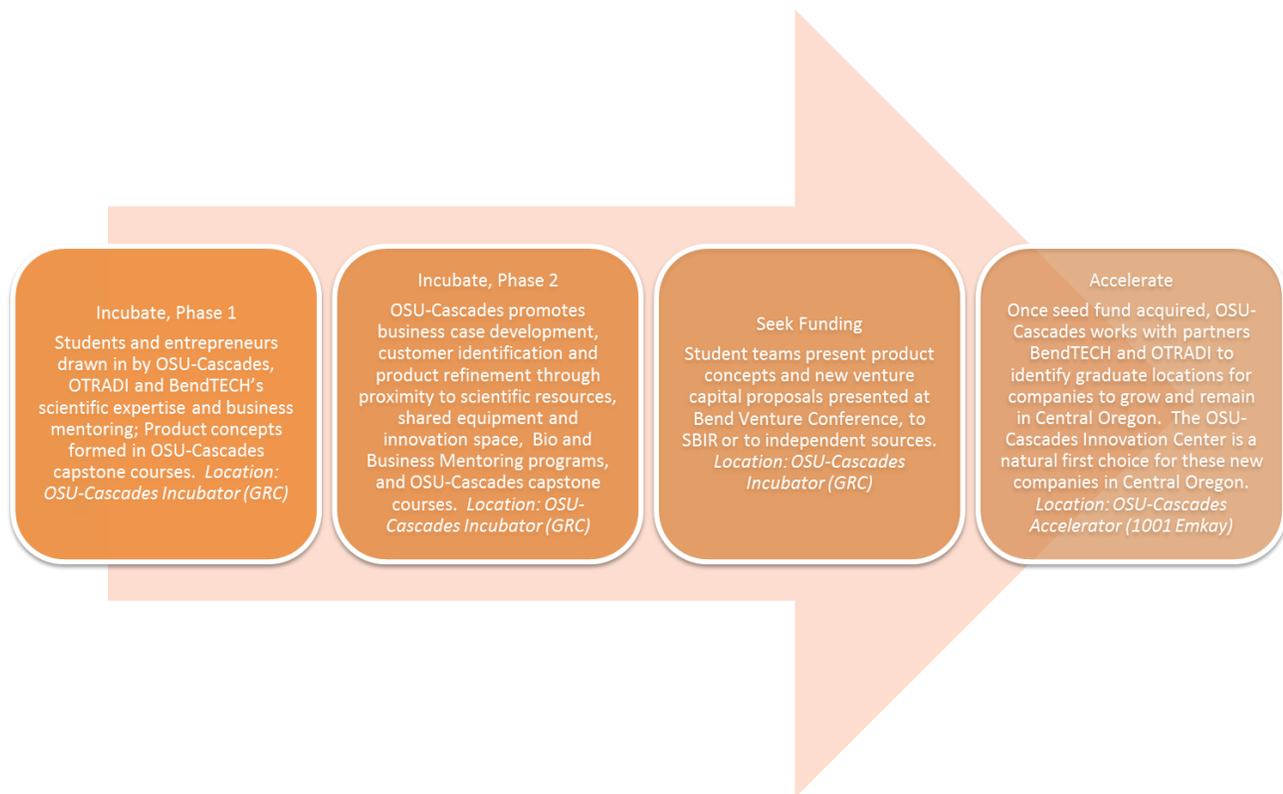
The OSU-Cascades curriculum is currently in a stage of incredible growth and opportunity. Investment in new programs is driven by a number of factors, but those that are demanded by the community and offer our students unique experiences are pursued first. Like that mentioned above, the curricula for such programs within the ICE can be developed from a combination of the experience of nationally recognized faculty and the expertise of Central Oregon industry leaders. OSU-Cascades plans to bring these entities to bear on high-impact educational experiences for our students, such as transcript-visible undergraduate research, senior theses, and other capstone curricula for majors in business, computer science, and the biosciences. In fact, such capstone endeavors have already progressed with the first course being taught by an industry leader in the summer of 2013.

With the successful awarding of this grant, OSU-Cascades will hire a full-time director to lead ICE, overseeing its programming and space oversight. The director will be expected to interface with OSU-Cascades faculty and administration, as well as industry experts, such as EDCO's Stable of Experts, OTRADI's BIO Mentoring Group,

and others, to establish curricula that encapsulate the advantages of the ICE. Additionally, OSU-Cascades is developing a partnership with the University of Oregon School of Law to extend their existing small business clinic and externships at ICE. Law students, under the supervision of the University of Oregon Small Business Clinic supervising attorneys, will be available to assist start-ups with entity formation or basic intellectual property services.

Through the innovative programs to be developed within the ICE, students will take a personal stake in prototyping a product or service, assessing market demand, identifying the customer base, identifying and testing a sustainable financial plan, and modifying the product per customer needs. Faculty and industry experts will collaborate across disciplines to teach the process of developing a product prototype, creating a business plan, seeking seed funding and launching a startup.

### *The Operating Model*



### **Measurements and goals:**

The Innovation Center will attract students, faculty and businesses for training and to ultimately locate or remain in Central Oregon. The project will provide infrastructure and program support to create or retain 100 jobs in the traded-sector by 2025. In addition, the construction related work associated with the renovation will create nine jobs per one million in capital investment or more than 10 jobs.

OSU-Cascades bases this job creation on Founder's Pad's experience in Central Oregon, and OTRADI's experience in Portland. Founder's Pad has focused on technology start-ups and has successfully launched multiple companies in Central Oregon.

OTRADI has provided work for more than 35 Oregon bioscience companies in the form of scientific expertise, product expansion, grant partnering, introductions to investors, recruitment and expansion. In the 2011-2013 biennium alone, OTRADI's work helped to create or retain 120 bioscience jobs in Oregon.

In addition to creating new bioscience jobs and retaining bioscience and supporting traded sector jobs, jobs created through ICE will command higher incomes for Oregonians. On average, biosciences and high tech jobs pay much higher than average wages.

ICE will help start, expand or relocate biotech businesses with long-term economic benefit to Central Oregon. It will serve as a catalyst for economic benefits or improved utilization of Central Oregon's resources, such as putting science graduates to work in startup and fledgling small businesses in Central Oregon and/or placing highly trained executives with growing biotech businesses. The bioscience industry has proven its ability to generate jobs and fuel innovation.

- The Battelle/BIO 2012 State Bioscience Industry Development Report cited Oregon with its decade-long employment gains at 30 percent, surpassing Texas, Massachusetts, and California as well as the U.S. bioscience industry; see [http://www.bio.org/sites/default/files/v3battelle-bio\\_2012\\_industry\\_development.pdf](http://www.bio.org/sites/default/files/v3battelle-bio_2012_industry_development.pdf).
- The bioscience industry is one of the top three economic growth sectors in the state. According to the Oregon Bioscience Association's 2010 annual report, Oregon's bioscience industry contributed \$7.1 billion to Oregon's economy; see [https://oregonbio.org/images/industry\\_reports\\_pdf/Annual\\_Report\\_2010\\_final.pdf](https://oregonbio.org/images/industry_reports_pdf/Annual_Report_2010_final.pdf).
- There is momentum to grow Bio-Science industry in Central Oregon <http://www.bendbulletin.com/home/2072192-151/building-a-bioscience-industry-in-oregon>; <http://bendtech.com/boosting-bends-entrepreneurial-ecosystem/>

### **What would happen if this project was not accomplished?**

OSU-Cascades will expand to a 4-year university in Fall 2015. Since the new campus will not be available until Fall 2016 at the earliest, OSU-Cascades needs to convert space in its Graduate and Research Center to accommodate faculty and programs. This project takes advantage of the opportunity to co-locate OSU-Cascades faculty and programs with the Innovation Center for Entrepreneurship, building a collaborative public-private partnership to grow business and enhance economic development in Central Oregon. Without this project, OSU-Cascades will not have the necessary space to expand to a 4-year university in Fall 2015, and the opportunities for collaboration between the university and the entrepreneurial community will be diminished.

Central Oregon's continuing lack of economic diversity, geographic isolation and lower wages make the region highly vulnerable to economic downturns, and recruitment and development of high tech businesses and workers difficult. Without OSU-Cascades ICE, including a biosciences and high tech incubator, Central Oregon will not have the research hub for new product concepts and will be challenged to provide an experiential education for OSU-Cascades students who are more likely to stay in the region post-graduation. The region needs a broader economic base and an ecosystem that brings talent.

Biosciences startups and young companies will continue to leave the region to grow their businesses in areas where the physical infrastructure better meets their needs. ICE will strengthen the bioscience economy in Central Oregon by providing a physical and networking hub for spinoff and startup as well as growth-phase bioscience companies. These companies are not able to build out their own offices and biosafety-compliant labs, and likewise they cannot afford to spend their limited capital purchasing the kind of heavy equipment (fume hood, tissue-culture hood, autoclaves, water purification, etc.) and conference facilities that the OSU-Cascades/OTRADI Bio-Sciences Incubator will provide as a shared resource for its client companies. The

development of an ICE, with its shared equipment, resources and BioMentoring program, is essential for keeping bioscience companies in Central Oregon after they have spun out of ICE as well for attracting startup and growth-phase bioscience companies and service providers to the region.

### **Does the project have strong community and agency support?**

A broad array of public and private organizations and entrepreneurial leaders have contributed to the vision and enthusiastically supported the creation of ICE. The entities below have emphasized the importance of leveraging the significant momentum in Central Oregon around start-ups with the expansion of the four year university and that timing is perfect for the development and success of ICE. Few communities have demonstrated the ability to work as collaboratively as Central Oregon, and ICE would provide the nexus for high tech and biosciences collaboration.

- a. *The Oregon Translational Research and Development Institute (OTRADI)* - a Signature Research Center and a non-profit research and economic development institute headquartered in Portland, Oregon. OTRADI's mission is to accelerate bioscience industry growth and job creation throughout the entire State of Oregon. OTRADI is committed to economic development, business incubation, broad-based scientific services and mentoring, with the goal of spurring development and translation of innovative research into products to benefit human health.
- b. *Oregon Biosciences Association*
- c. Private businesses, such as Bend Research, Bend Broadband, Grace BioLabs, Agere, and G5
- d. Economic Development for Central Oregon (EDCO). EDCO manages:
  1. *Stable of Experts* – a database of 100+ experts comprised of talented members of Central Oregon's information technology, software, Internet, renewable energy/clean tech, medical technologies, aviation and consumer goods industries. It also includes experienced business people with finance, marketing, legal, and strategy expertise who want to share their knowledge with early stage companies.
  2. *Bend Venture Conference (BVC)* – An annual angel conference hosted by EDCO and held each October. The conference showcases concept and launch stage companies from throughout Oregon and attracts over 400 attendees, including 30+ angel investors. The winning launch stage company receives a \$250,000 to \$300,000 private equity investment which is managed through an LLC and its fund manager. Start-ups from Founders Pad, including OSU-Cascades faculty, and OSU-Cascades student teams, which will be part of the Innovation Center, have competed successfully at the BVC.
- e. *Tech Alliance of Central Oregon* – A non-profit organization dedicated to the promotion and support of high tech companies and business professionals in the region. It is run by a volunteer board of directors and supports such activities as TechSpace Bend, the BVC unConference, Startup Weekends and professional meet-up events for local user groups.
- f. *Opportunity Knocks* - Opportunity Knocks is a non-profit Central Oregon business advisory organization that provides small business decision-makers the ability to achieve their goals by providing each member with their own collaborative peer-to-peer group of concerned small business advisors who offer trusted solutions.
- g. *Seven Peaks Ventures* – A regional early stage seed fund (\$15 million to be raised) that will focus on emerging companies arising out of Founders Pad and other entrepreneurial activities in the state.
- h. *Cascade Angel Fund* – A year-round fund created by local investors that will be launched in January 2014 and will invest in Oregon companies that meet established criteria for growth and good, sound investment – scalable, innovative, capital efficient, etc.

### **Budget**

State Funds Requested: \$1 M (\$360,000 non capital; \$640,000 capital construction)

Capital Construction:

- 45-student lecture hall (\$130K)
- 80-student lecture hall convertible to 130 person event space (\$260K)
- Open office or “hoteling” workspace (\$150K)
- OSU-Cascades Business and Computer Science faculty and research offices (\$100K)

Start-up costs (2 years of operations):

- Innovation Center Director (\$310K)
- UO School of Law Partnership (\$50K)

Potential OTRADI Match:

- Biosciences Incubator (\$300K)
  - Wetlab (including fume hood)
  - Biosciences equipment storage
  - Open office space
- Equipment and supplies for Biosciences (\$100K)

OSU-Cascades Match:

- Marketing and communications (\$50K)
- Office equipment, including computers (\$50K)

Total project range: \$1.5M; OSU-Cascades match of \$100K; anticipated OTRADI match for biosciences incubator in the range of \$250 to \$400K

**Are there operating or maintenance costs associated with the project?**

Yes. OSU-Cascades plans for ICE to be self-supported by internal pay for service revenue streams and an OSU-Cascades annual map from general fund. Self-support revenue streams include incubator desk rental, shared equipment membership, lab space rental, consulting services, non-credit course offering, grants and OSU-Cascades General Fund.

**Is this project characterized as short or long term? (short = 1-2 years)**

Investments will occur immediately upon funding and programs will be in place by Fall 2015. Impacts will extend well into the future from OSU-Cascades graduating students, faculty research, start-up business success, workforce training, and bioscience research and development.