



# Oregon State University Advantage Accelerator

**Advantage Accelerator**  
Oregon State University  
1110 NE Circle Boulevard  
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## The Oregon State University, Advantage Accelerator's Testimony in Support of Senate Bill 418

Modifies requirement that start-up businesses that may be assisted by regional collaboration facilitated by Oregon Business Development Department have as purpose commercialization of university-based or university-assisted research and increasing number, and ensuring retention, of such businesses.

**Dear Chair Riley, Vice Chair Girod & Members of the Oregon Senate Committee on Business and General Government:**

My name is Karl Mundorff and I am a Director of the Oregon State University, Advantage Accelerator. The purpose of the Advantage Accelerator is to further the impact of innovations for the world by developing innovators and entrepreneurs to learn the skills and resources required to bring inventions to market and contribute to the development of the Oregon Innovation Economy.

### **Overview of Accelerators:**

The following comes from a recent report by Sheryl Winston Smith from the U.S. Small Business Administration, Office of Advocacy, and titled How Accelerators Promote Regional Entrepreneurship.

In the Innovation Economy, there are a number of resources that need to be in place to grow startups to scale. Some of those resources are access to early stage capital, human capital, incubation space and program support through Accelerators. It's an important distinction to make between what an incubator is and what an accelerator does.

There is two stages to incubation. Early incubation is focused on ideation or 'developing a good business idea'. Individuals or teams can incubate, especially if they are working in deep science and technology, for years. An example could be an applied research lab that is trying to figure out not only what the capabilities of the research is but also what are the potential market applications. The second phase of incubation can come after Acceleration programming has been provided and the company is working on traversing the valley of depth before there is mass adoption. In the middle is where Accelerators live.

In general, Accelerators are characterized by several distinct features that give them a novel organizational form. There is a formal application and selection mechanism; an Intensive structured development program or programs with a pre-determined cohort; fixed length of time of the programming, and active mentoring. Additionally, Accelerators may provide financial capital and related services, typically in exchange for a small equity stake in the startup. There is a formal end of cohort period, typically marked by a "Demo Day" event in which startups in each cohort pitch to investors.

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A sentinel feature of accelerators is the explicit design of cohorts. These short “bootcamp” periods allow portfolio firms to interact extensively with other founders. The peer effects literature shows that spatial and social proximity to peers increase the likelihood of a given activity (Marmaros & Sacerdote, 2006; Sacerdote, 2001; Wright & Mischel, 1987). A growing literature suggests that such peer effects are particularly important in entrepreneurship, for example, in the decision to enter into entrepreneurship (Kacperczyk, 2013; Nanda & Sørensen, 2010) and the evaluation of the viability of entrepreneurial ideas (Lerner & Malmendier, 2013). Accelerator cohorts provide an intense experience that mimics the university experience, leading to cultural capital derived from social bonding (Bourdieu, 1986). In other words, Accelerators provide the structure and the instruction that early career entrepreneurs need to reduce the uncertainty in their business, learn how to iterate and pivot while the stakes are low and the cost of failure is minimal.

**The OSU Advantage Accelerator:** is an innovation development center where the community, faculty, students and staff can gain access to:

- state of the art entrepreneurial programming to commercialize ideas
- develop a successful business model
- access mentors
- access to interns
- access to potential customers
- access to funding (federal and state agencies, angels, venture, etc.)

Our unique in the country programming includes:



**Iterate!** Four workshop sessions where we teach a process to evaluate business ideas – this is a hybrid train-the-trainer program which is now being utilized by groups outside of our Accelerator.



**Accelerate!** Ten sessions where we work through the right-hand side of the Business Model Canvas to ensure Product/Market Fit.



**Launch!** A weekly, five month program designed to launch companies with a validated business model, repeatable sales process, a minimal viable product and a funding path.



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Our Accelerator clients work in:

- Material Science
- Robotics/Artificial Intelligence/Virtual Reality
- Chemical/Chemistry
- Drug Delivery Systems/Drug Development
- Mechanical/Microchannel
- AgTech/Genomic
- Donuts

And come from Corvallis, Roseburg, Eugene, Newport, Waldport, Albany, Sisters, Bend, Salem and Portland and we have had a number of new companies formed and doing well in their markets.

### Research Based Startups:

Examples include Valliscor which makes the active ingredient for the whole class of oral inhalants to treat allergies. Flonase is the best known of these drugs. Valliscor has an approximate 75% global market share for this active ingredient for this class of drugs. They have recently made a significant long-term lease agreement which will keep their research and development for this compound and future compounds in the South Willamette Valley.

A second example is OnBoard Dynamics based out of Bend. This company has developed technology which enables natural gas to be used as a transportation fuel on a national basis. The technology comes out of OSU Cascades where the company is still headquartered. This woman led company is in early product sales, is developing a supply chain in Central Oregon and has just finalized a round of investment funding.

A third example is eChemion which has developed a material and a process which allows energy storage batteries to have an increase in lifespan of these systems by a factor of four. These products are enabling alternative energy to be utilized at scale. The company is at an inflection point in their growth with significant orders coming in 2019.

A fourth example is Agility Robotics which has produced Cassie, the first robot in the world to mimic human gait. The company has a manufacturing plant in Albany. Beyond creating research robots for other universities, it is focused on solving the Last Mile package delivery problem.

### Student Led Startups:

We also have examples of student companies which are moving forward in their markets.

Agromo.ai, which was started when the CEO was still at OSU, is an AgTech company using hyperspectral imaging to diagnose crop disease. After proving their technology with a Global 500 company and one of the largest agricultural companies in America, the company is poised for explosive growth in 2019.



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Seiji's Bridge's founder, utilized the services of the Advantage Accelerator to learn that the company needed to pivot its lead product from being a toy which could provide some level of funding for autism research, to an autism therapy tool. Based on this understanding, the student founder has been able to engage with researchers, therapists and parents of autistic children from around the country. This interaction has led to the creation of multiple therapy products, changed his career trajectory and given him to develop a stronger personal relationship with his autistic brother.

The last example is Melaknow which allows primary care physicians to better access suspicious moles with much better accuracy than before. This student leader came to OSU from Portland where through mentorship from The Young Entrepreneurs program. Through the Accelerator, we are working with him to build his team, his business model and work on a funding process.

### **Community Companies:**

At the Advantage Accelerator, as noted by the diversity of geographies we have attracted teams from, we have worked with a number of startups that have come from the broader OSU community. These companies have the same access to Accelerator resources as any OSU based team. Some examples of companies who have benefited from working with us include:

Suturegard Medical which has created a medical device which allows surgeons to close wounds faster with healthier outcomes than the current solution. The company utilized the veterinary college to conduct an animal study which allowed the company to progress to a successful clinical trial. The company has brought in an outside CEO and is in early sales.

Ampere Scientific utilized the Advantage Accelerator program to help them focus their business model and identify the appropriate customer segments. This technology, from the National Energy Technology Lab in Albany, allows for better understanding of the quality of specialty metal alloys for the aerospace, automotive and electronics industry while using significantly less energy than current technology.

Oebalus Technologies has used the Advantage Accelerator program to focus their product offering to meet their customer's needs by gamifying shooting sports. We have also helped them connect with funding sources, hone their pitch deck and continue to provide advice and counsel.

### **Current Results:**

BY THE NUMBERS (FY14 – Q3FY 18)

70+ Companies formed  
170+ Jobs Created  
\$10.5m Revenue



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**\$4.5m** Follow-on equity investment

**\$570k** Debt capital raised

**\$14.4m** Non-dilutive capital

**\$19.47m** Total dollars raised

**The Accelerator's Access to Capital:** The Accelerator has relationships with a variety of funding sources including internal funds, government agencies, angel groups, early stage venture funds and later stage venture funds. Examples include:

- Internal University Venture Development Funds
- Business Oregon's Phase 0, Enhanced Phase 0, HiOPs and SBIR/STTR Matching programs
- The Small Business Administration's SBIR/STTR programs
- The National Science Foundation's Innovation Corps program
- Willamette Valley Capital
- Oregon Venture Fund
- Cascade Angels
- Element 8
- Elevate Capital
- M34 Capital
- Academic Technology Ventures
- Rogue Venture Partners
- Seven Peaks Ventures
- Industrial Technology Investment Corporation - Taiwan

We engage a number of the members of these companies on our advisory board, as mentors, coaches and judges for our various programs and competitions.

### **Connections between the OSU Advantage Accelerator and the RAIN Eugene Accelerator:**

We interact with RAIN Eugene in a variety of ways. Their recent Executive Director sits on our advisory board. The new Executive Director and I confer on a variety of issues. Staff has come to present to our cohorts on a variety of topics. Advantage Accelerator staff have provided mentoring to RAIN Eugene teams, participated in speed mentoring and attending cohort graduations. We have exchanged clients and client leads and we continue to support each other in a variety of other ways.

**Changes in funding:** If funding from the state is interrupted, it will be difficult to be as engaged in the community as we have been. We have historically seen a 60% community – 40% OSU mix of teams in our cohorts. It is projected that without state funding, we expect to see a 70% OSU – 30% community mix. It will also be harder to engage with RAIN Eugene in as meaningful way, as we have until now.



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In conclusion, I'd like to leave you with these thoughts:

- The state economy benefits long term from being innovation based
- Leveraging the research from universities to create these innovation based startups makes sense
- These programs fit into Business Oregon's Grow Your Own strategy which means we should be supporting home grown traded sector/high growth startups
- We (RAIN Eugene and the OSU AA) have a history now of successfully creating these startups
- The ROI on the state's investment in funding the accelerators has been approx. 7:1
- It would be ill advised to stop supporting these efforts. Successful ecosystem development is at least a 30 year process and we are in the adolescent phase of our ecosystem development

I appreciate the opportunity to provide this testimony and to appear before this committee and I hope you will support the passage of SB 418. Please let me know if I can answer any questions or provide any additional information as you consider this bill.

Sincerely,

*Karl Mundorff*

Karl W. Mundorff  
Director, OSU Advantage Accelerator  
Principal Investigator, OSU NSF I-Corps Site