

BUSINESS OREGON

Phase II Presentation

Ways & Means Joint Subcommittee on
Transportation and Economic Development

April 19-20, 2017

OREGON INNOVATION COUNCIL (InC)

Chris Harder, Director, Business Oregon

Heather Stafford, Innovation & Entrepreneurship Manager, Business Oregon

Innovation and Entrepreneurship

INNOVATION

OREGON INNOVATION COUNCIL

- Signature Research Centers
- SBIR/STTR Matching Grant
- Commercialization Fund
- High Impact Industry Investments

ORE. MANUFACTURING INNOV. CENTER

METRICS:

- Investment Leverage
- Industry R&D
- Product Commercialization

CAPITAL

OREGON GROWTH BOARD

- Oregon Capital Scan
- OGA: Institutional VC
- OGF: Early-stage Impact Investing

METRICS:

- Internal Rate of Return
- Investment Leverage
- Oregon \$ Deals

ECOSYSTEM

STATEWIDE ADVISORY COMMITTEE

- Small Business Development Centers
- Small Business Marketplace
- InventOR Competition
- Rural Opportunity Initiative

METRICS:

- Jobs
- New Business Starts
- Financial Sustainability

Oregon Innovation Council “Oregon InC”

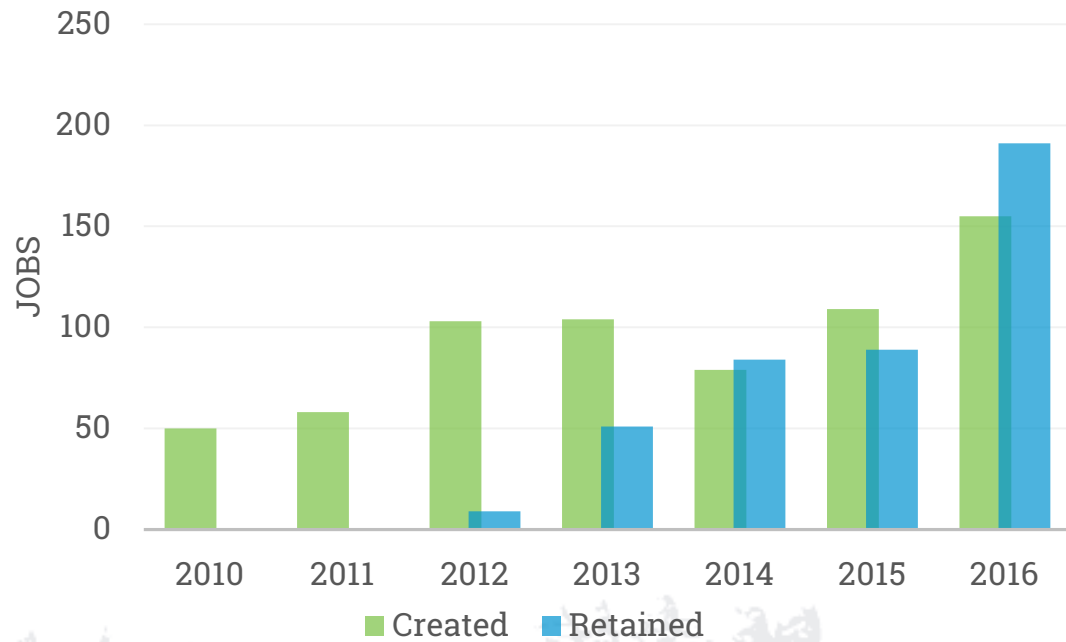
- 20 member Governor-appointed board.
 - industry leaders, universities, businesses, investors, and legislators.
- Launched 10 years ago to commercialize technologies and promote industry research & development.
- Included in Business Oregon’s base budget in 2015-17.
- The Council’s new approach aligns with latest Innovation Plan

Oregon Innovation Council “Oregon InC”

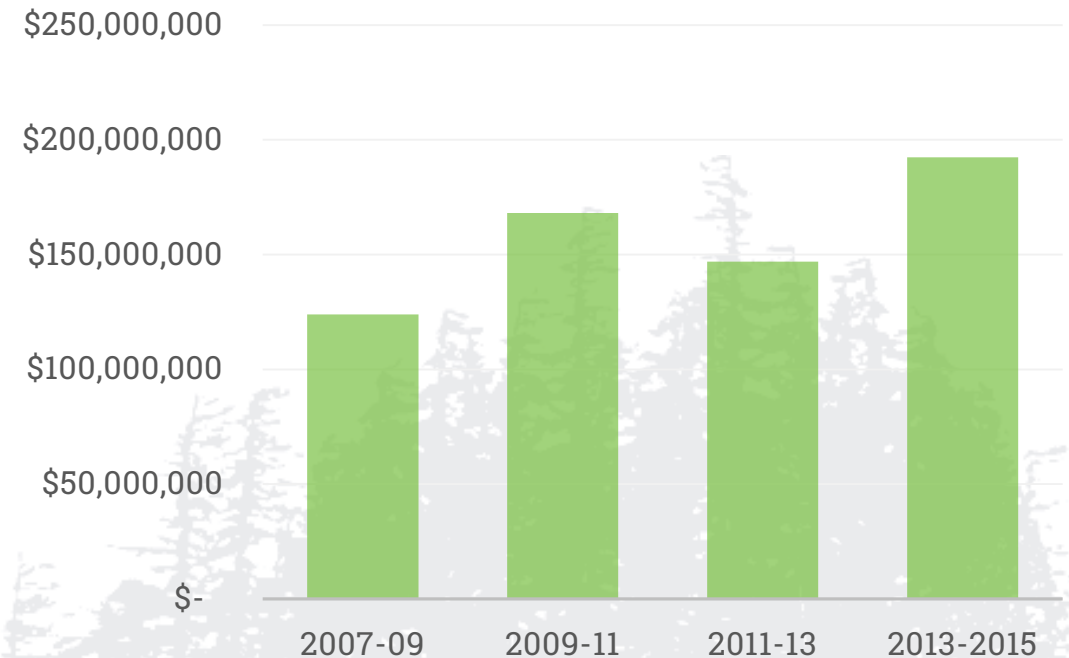
- Since 2007
 - Invested in 190 companies
 - \$630 million in follow-on funding (6:1 Leverage)
 - 400+ small businesses used Signature Research Center’s shared labs

Oregon InC Company Outcomes

Jobs Created and Retained



Follow on Funding-Federal and Private Grants



Oregon InC '15 - '17 Budget

'15 – '17 Oregon InC Investment Categories	Amount
Signature Research Centers	\$ 13.9m
Industry Initiatives	\$ 4.0m
Total Biennium Budget	\$ 17.9m (Lottery Funds)

Oregon InC '17-'19 Proposed Budget

'17-'19 Oregon InC Investment Categories	Amount
Signature Research Centers	\$ 7.5m
Commercialization Fund	\$ 5.0m
High Impact Opportunity Public-Private Projects	\$ 4.2m
SBIR (Small Business Innovation Research) Support	\$ 1.0m
Total Biennium Budget	\$ 17.7m (Lottery Funds)

Signature Research Center Core Activities

- Oregon BEST, OTRADI, and ONAMI
- Build pipeline of promising science-based companies
- Help companies access federal and private capital
- Work with university research teams to discover new technologies
- Assist companies with prototyping and testing
- Market research for companies

Commercialization Fund (Companies)

- Now centralized to achieve SEC accredited status
 - Equity investments at market rate
- Provides “patient” capital for emerging science-based companies
- Prioritize companies who have:
 - Strong team for business development
 - Product has strong market potential
 - Makes impact to a competitive Oregon industry
 - Committed to growing in Oregon
- Clear and measurable Internal Rate of Return

High-Impact Opportunity Funding (Projects)

- Provides one-time grant funds for limited duration projects
- Project criteria:
 - Financial leverage (local, private or federal)
 - Established public-private partnership
 - Innovative technology applied to specific industry
 - Not for on-going operating funds

SBIR/STTR Federal Grant Support

- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)
- **Application Support**
Small grants to help companies prepare federal grant applications.
- **Matching Grants**
Help federal grant recipients fill additional financing gaps, and help get products closer to market.
- 40:1 leverage of state investment to federal funds.

SIGNATURE RESEARCH CENTERS (SRCs)

Skip Rung, ONAMI

David Kenney, Oregon BEST

Jennifer Fox, OTRADI

Skip Rung

Executive Director

Oregon Nanoscience and Microtechnologies Institute (ONAMI)

Commercializing Advanced Science and Technology in Oregon



Robert D. "Skip" Rung, President and Executive Director



Cindy Dahl, VP Operations



Jay Lindquist, Commercialization



Len Blackstone, Market Research and Labs

EIRs: Augie Sick, John Brewer, Michael Tippie



collaborative
research



technology
labs



commercialization



Key Messages

- 🌱 ONAMI pioneered a proven and “lean” SRC model, recognized nationwide
- 🌱 We are focused 100% on Oregon science-based startup success, and this has driven the details of our FY16-17 and FY18-19 strategy and programs
- 🌱 We are again on track to meet or exceed all goals
- 🌱 We have a new process for commercialization based on 10 years of successful experience



collaborative
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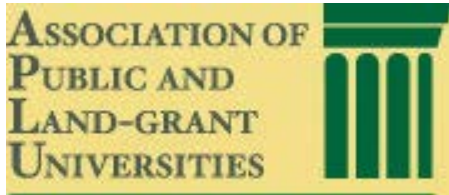


commercialization



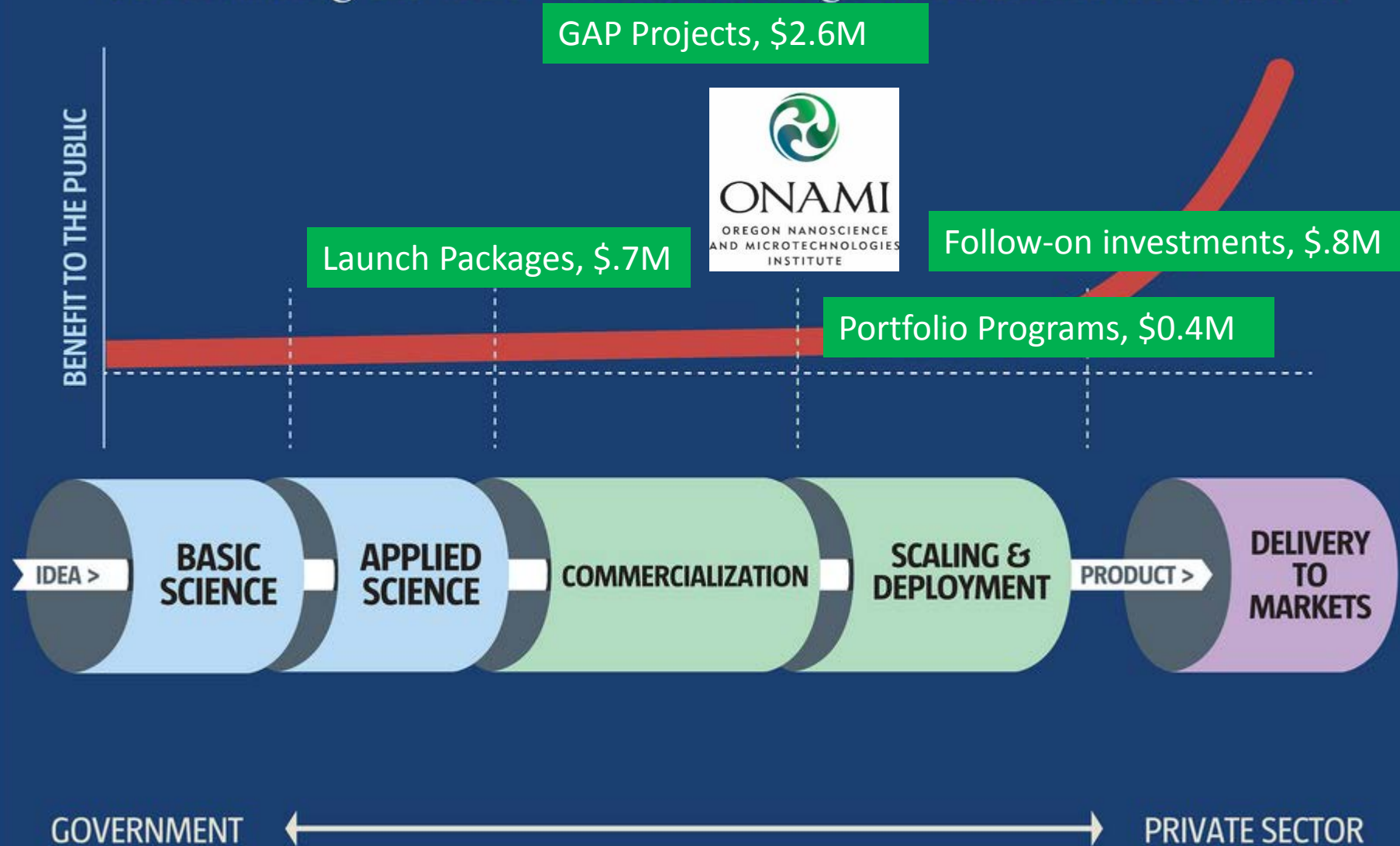
is working...

Nationwide recognition



THE INNOVATION PIPELINE

Streamlining our labs will turn more good ideas into innovations



FY2016-2017 6QTD Performance

	Performance Measure	Goal (for full biennium)	6QTD Status (Dec. 31, 2016)
Required	Increase in Gap fund portfolio company Oregon employment	30 FTE	58 FTE (goal already exceeded)
	Increased Gap fund portfolio company revenue by 50%	\$14.9M revenue in FY16-17	\$12.5M
	New external funding into gap portfolio companies	\$20M	\$30.4M (goal already exceeded)

>\$350M
Raised!

ONAMI GAP Fund Portfolio

<p>Advanced materials, semiconductors, sensors, optics</p>	<p>SHOEI CHEMICAL INC.</p>
<p>Energy generation and storage</p>	<p>Agility Robotics</p>
<p>Water</p>	<p>Medical Devices</p>
<p>Biotech</p>	

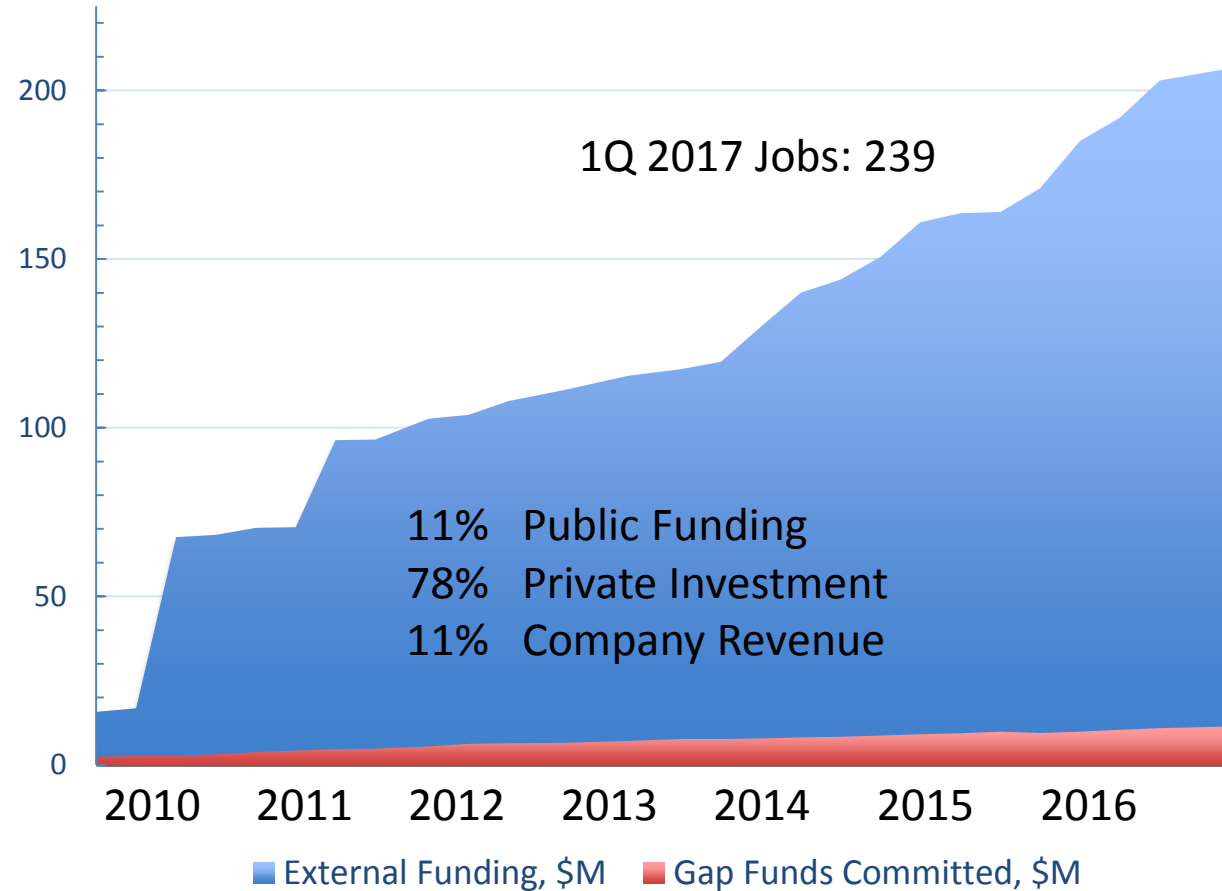
Gap Company Funding History

58 Projects Initiated to date

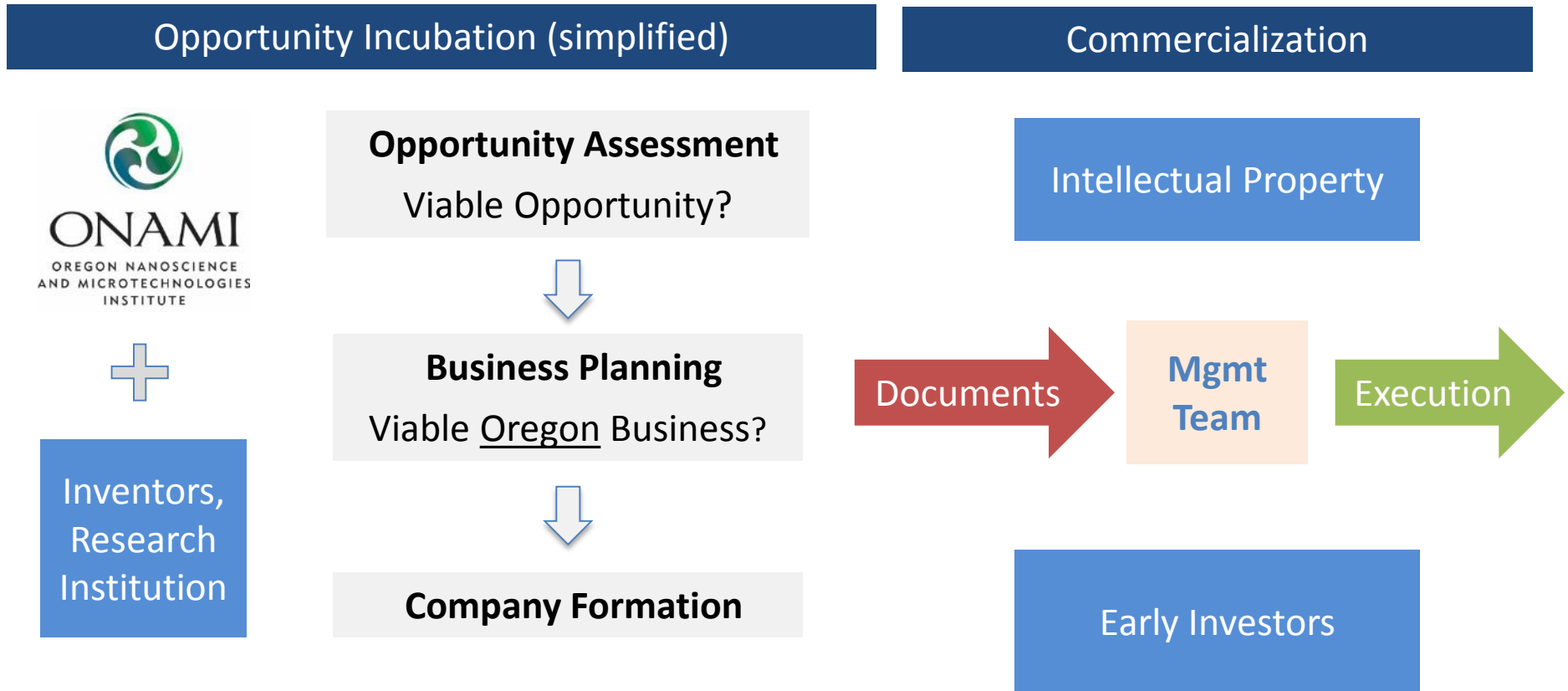
ONAMI
Gap Fund
Started 2006



\$M raised



ONAMI Science-based Startup and Spinout Engine







FREE Statewide Webinar Series for Science-Based Startups and Entrepreneurs

1. **Finding Customers** – *Marketing Basics*
2. **Intellectual Property**– *A Business Perspective*
3. **Organizing the Team** – *Company Formation*
4. **Locating the Money** – *Funding Opportunities*

Begins Wed, May 3, 2017, 11AM (PST)

Register at www.ONAMI.us

Looking forward to Oregon InC 2.0

-  Continued focus on science-based startups
-  Engage with inventor-entrepreneurs at earliest stages

Contact: Skip Rung skip@onami.us



collaborative
research



technology
labs



commercialization

David Kenney
Executive Director
Oregon BEST

GLOBAL IMPACT. ONE STARTUP AT A TIME.

Oregon BEST Update

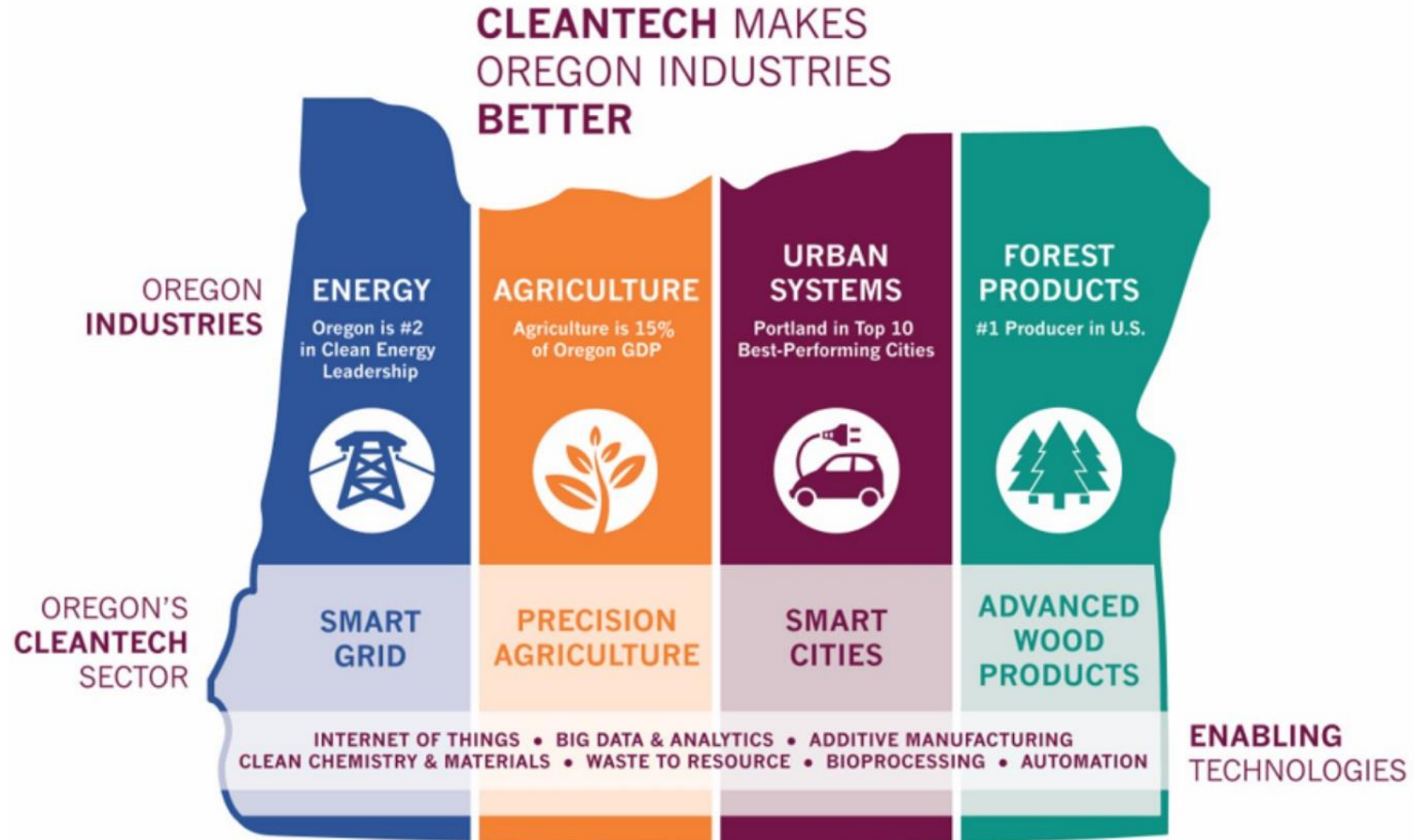
Joint Committee on Ways & Means

Subcommittee on Transportation & Economic Development

April 19, 2017



Cleantech is good for Oregon



SOURCES: Oregon Forest Resources Institute; Oregon Business Plan; CleanEdge "2015 US Clean Tech Leadership Index"; Milken Institute, "2015 Best-Performing Cities"

Key cleantech takeaways



CLEANTECH = MANUFACTURING + EXPORTS

MANUFACTURING + EXPORTS = OREGON





Portfolio Snapshot

- Over 65 companies funded/ supported across diverse industries
- \$52+ million in follow-on funding, after \$5.8 million in Oregon BEST commercialization funding
- \$20 million in customer revenue in first 6 quarters of this biennium.
- Employing nearly 300 in Oregon.
- Oregon BEST support:
 - Funding: commercialization funding, access to federal grants, connections to investors
 - Assistance: mentoring, accelerator, university interns, manufacturing scale-up support, national event showcasing

Recent Oregon BEST Company news

- HM3 Energy (Troutdale) attracting foreign investment in rural manufacturing
- DR Johnson expanding Riddle manufacturing workforce
- NWREC (McMinnville) pilot on Target dist. center in Albany
- The Renewal Workshop opens manufacturing facility in Cascade Locks
- Bend's Onboard Dynamics lands pilot with SoCal Gas
- Ampere Scientific (Corvallis) receives prestigious National Science Foundation R&D grant
- Tigard's ESS named to Global Cleantech 100 list
- Arcomoto (Eugene) to participate in Uber EV promo

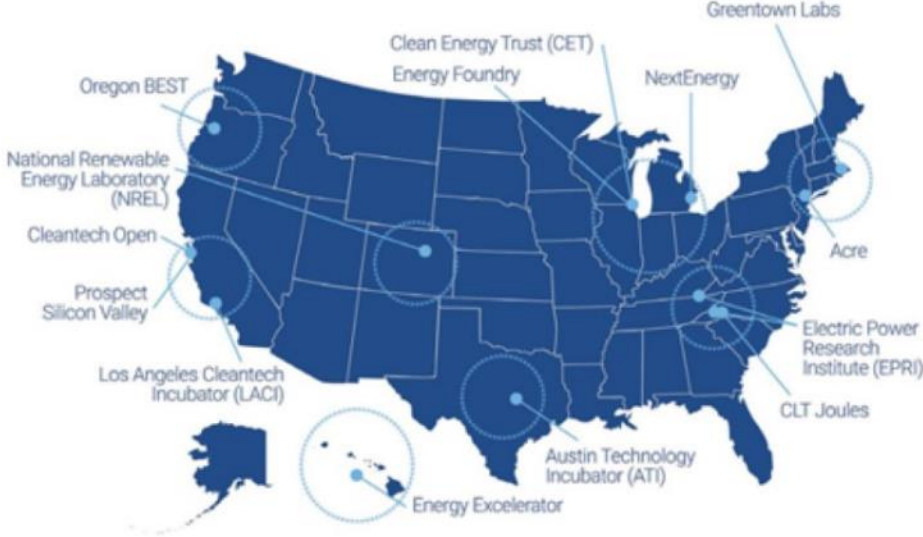


Initiative Work

- Federally-funded cross laminated timber (CLT) feasibility study nearly complete
 - 18 month project led by Oregon BEST with Oregon State University, Washington State University, Oregon Manufacturing Extension Partnership, Oregon Department of Forestry, Clackamas County, City of Eugene, City of Corvallis/Benton County
- Wells Fargo-funded StartSpace effort to improve cooperation among startup support organizations across the state.
 - Completed a statewide needs assessment, including a survey and interviews to gather insight from entrepreneurs in all sectors and communities across the state. Learnings will be used by statewide network to target specific connections between communities that have identifiable gaps with organizations poised to fill them.
- Actively participating in northwest effort to pursue federal energy funding
 - National labs, universities, and clean energy support orgs in five states

GLOBAL IMPACT. ONE STARTUP AT A TIME.

Engaging beyond Oregon



National Advisory Council on Innovation & Entrepreneurship



Looking forward to '17-'19

- Maintain momentum around cleantech as a high-impact opportunity. Engage in developing High-Impact Opportunity projects
- Continue to build pipeline of new companies & help prepare them for investment (state gap funding, private investment, federal SBIR/STTR)
- Manage portfolio –continue to provide support and showcasing opportunities
- National engagement to create opportunities for Oregon
- Work with partners to develop new funds and funding models for startups
- Aggressively pursue new funding to maintain our programs



Thank you

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oregonbest.org

Jennifer Fox

Executive Director

Oregon Translational Research and Development Institute (OTRADI)



Oregon Translational Research & Development Institute



OTRADI Bioscience Incubator

A complex network diagram background consisting of numerous small circles (nodes) connected by thin grey lines. The nodes are colored in shades of blue, green, yellow, and light blue, matching the logos. The network is dense and interconnected, filling the right and bottom portions of the image.

Jennifer Fox, Executive Director
OTRADI & OTRADI Bioscience Incubator (OBI)

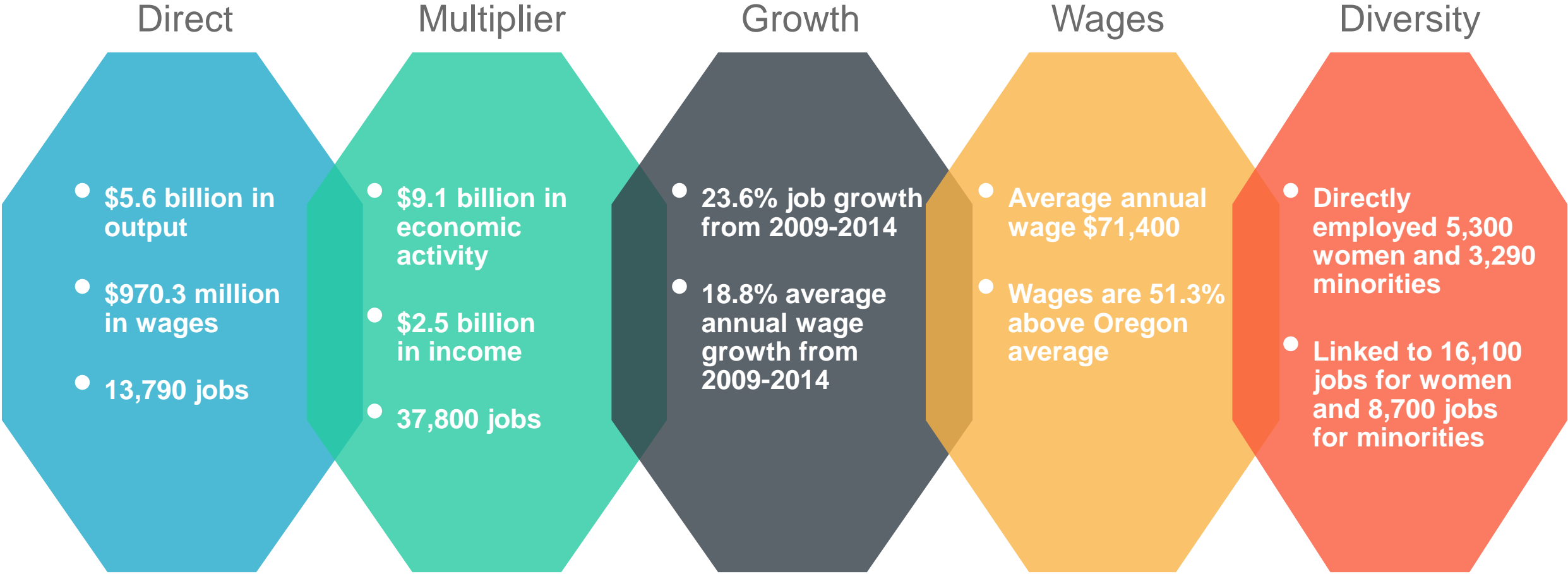
Who is OTRADI, and what do we do?

- OTRADI is a 501(c)(3) non-profit institute, Signature Research Center funded by the State of Oregon
- OTRADI Staff = 3 FTEs
- OTRADI is governed by an independent board of directors comprised of bioscience business leaders, university members, startup founders, etc.
- This biennium alone, OTRADI has worked with 60 startup companies in the “bioscience” field, which includes new medical devices, therapeutics, diagnostics, digital health, healthcare IT, health and wellness wearables.

OTRADI's Mission:

Fuel economic development of Oregon's bioscience industry by translating innovative research into products and startups, incubating and launching companies that benefit health and wellness and create high-wage jobs for Oregon.

Economic Impact of Bioscience in Oregon



Source for stats: Oregon Bio Assoc. Report 2014, <https://oregonbio.org/bio-in-oregon/industry-reports>



OTRADI Addresses the Specialized Needs of Bio Startup Companies

1

INFRASTRUCTURE

Laboratory facilities for startup companies.
Partnerships with private developers and economic development groups to help keep scale-up and growth phase bio companies in Oregon

2

ACCESS TO FUNDING

Helps startups get federal funding for via **SBIR/STTR*** grants & help prepare startups to pitch for and get VC funding

Grow bio-angel networks and VC access

3

WORKFORCE

BioCatalyst and BioPro Training via Oregon Bioscience Association

Internship programs with univs & startups

Technical training at community colleges

***SBIR/STTR Grants = Small Business Innovative Research Grants**

OTRADI Bioscience Incubator (OBI)

De-Risk Growth, Provide Space and Mentoring for BioStartups

The OBI is Oregon's only bioscience-focused startup business incubator

- Unique Laboratory Space
- Shared Scientific Equipment
- Statewide BioMentoring Network
- Collaboration & Training Entrepreneurs
- Hub of attraction for VC and industry funding
- ROI for Oregon



OBI Provides Training, Labs and Shared Equipment for Startups

ENTREPRENEURIAL
TRAINING & BIOMENTORING



18,000 SQFT
PRIVATE WET LABS
& OFFICES



SHARED SCIENTIFIC
EQUIPMENT



OBI is a Hub of Bio-Entrepreneurial Collaboration



NETWORKING & PROGRAMS



BI MENTORING NETWORK
ENTREPRENEURS IN RESIDENCE



COLLABORATION WITH PEERS



HUB FOR ATTRACTING CAPITAL



MARKET RESEARCH



OBI has Expanded from 6 to 17 On-Site Bio Startup Companies

MOVED OUT



13therapeutics™



MOVED IN

Hemex Health

Virogenomics

Bio Development



CIRCUMVENT
PHARMACEUTICAL

STABLE in OBI



SONIVATE
MEDICAL
POINTING ULTRASOUND IN A NEW DIRECTION



BVBiomed Ltd



Neuralexo

GROWING



Madorra



STONESTABLE•INC

Within this Biennium



Client Companies Have...



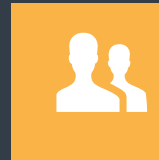
Been Awarded >\$13 million in SBIR/STTR Non-Dilutive Funding



Engaged in 10 Corporate or Pharma Partnerships



Raised >\$30 million in Private, Angel and Venture Capital Funding



>120 jobs created or retained

Note: OTRADI's State funding this biennium is \$2M

OBI Startup Company Success Stories

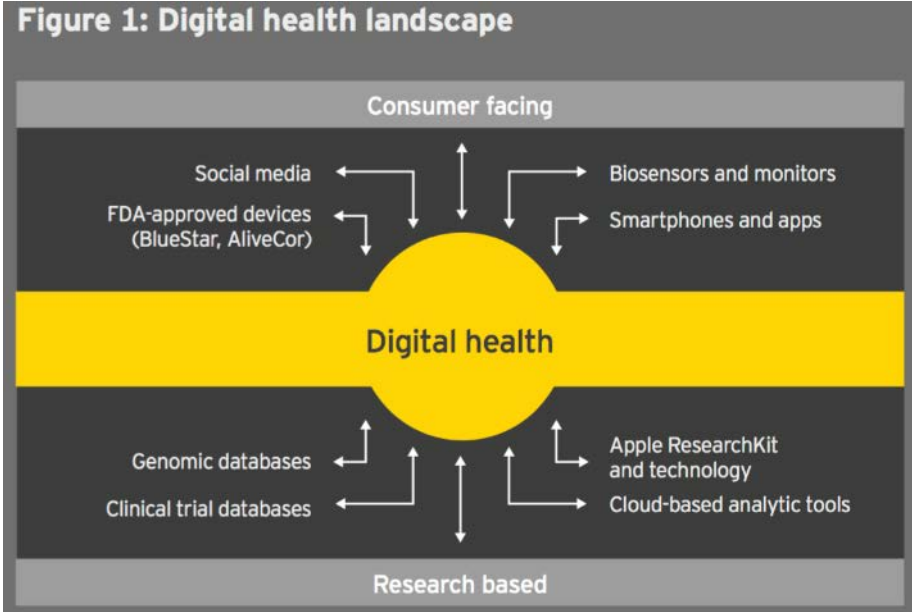
Portland vaccine developer acquired by 'immune programming' startup
TomegaVax will continue to conduct its research in Portland, despite its merger with a San Francisco-based startup.



- Up to \$150 million will be invested in Vir Bio, with R&D arm located at the OTRADI Bioscience Incubator
- Financing led by ARCH Venture Partners, Bill & Melinda Gates foundation, and others
- Recognition of world-class research at OHSU and value of startup talent here in Oregon



Future-Focused BIOSCIENCE Sectors Where Oregon has a Competitive Advantage



Oregon's Strengths in Software, Hardware, IoT & Fitness Apparel translate to Competitive Advantage in:

- Digital Health
- Mobile Health
- Wearables/Biosensors
- Healthcare IT

Figure 2: Mobile Health evolution: from siloed solutions to seamless care



Goals for next biennium: Expansion of our Mentoring Network

ONLINE PLATFORM LAUNCH

IMPLEMENTATION OF NEW PROGRAMS

STATEWIDE COLLABORATIVE NETWORK



- Combining mentor networks will allow expansion from 100-500 mentors; varied sectors
- Video streaming of programs to rural locations in Oregon
- Company milestones and funding facilitated by mentoring

Mentor Cohort Program
Partial funding: Davis Wright Tremaine

Startup Bootcamp
Partial funding: Tonkin Torp & Immix Law

Intensive SBIR Workshops
Partial funding: Ater Wynne



FUTURE DIRECTIONS FOR OTRADI

- Increase partnerships to reach a wider audience (sectors, regions)
- Expand our BioMentoring network to reach rural entrepreneurs and other partnering sectors
- Increase profile of bio companies in Oregon to attract VC funding
- Partner with developers and investors to create graduation spaces for scale-up bio companies, allowing them to stay and grow in Oregon



**To learn more about the
OTRADI Bioscience
Incubator, please contact:**

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www.otradi.org



@OTRADIBio



otradi.org/bioscience-map

SECRETARY OF STATE AUDIT

Ramona Rodamaker, Assistant Director, Business Oregon

Topics Audited

1. Selection and modification procedures for Strategic Reserve Fund (SRF) awards
2. Evaluation of business incentives and loans
3. Transparency of business incentive and loan results

Key Audit Findings

- Business Oregon programs added new jobs and workers filling those jobs generated positive returns to the state through income tax payments.
- Oregon has recently made a number of improvements in reporting awards to individual businesses putting it near the top in state rankings and improving public accountability.
- Business Oregon has developed new, more thorough processes for making Strategic Reserve Fund awards.
- Business Oregon is in compliance with all current laws and regulations.

Actions Taken to Date

- ✓ SRF: Made improvements to SRF decision-making, contracting, and monitoring work flow processes
 - ✓ Include information on referral sources and financial review in SRF memos to the Governor
 - ✓ Capture other state investments on intake form
 - ✓ Began process to define conditions under which contract amendments will be offered and to outline a menu of consistent contracting options and terms

Actions Taken to Date (cont'd)

- ✓ Completed phase one of strategic planning (mission, vision, and values). Started phase two, where we will develop program-level work plans including outcomes, targets, and metrics.
- ✓ Will continue long history of collaborating with Department of Revenue, local tax assessors, Legislative Revenue Office, and others to assist with program evaluation.
- ✓ Established direct link to our program evaluation results on DAS Transparency web site.

Non-Actionable Audit Recommendations

- Establish job creation targets for 15 programs referenced in report
 - Only nine are Business Oregon programs, and only four of those have job creation as a focus
- Perform sunset reviews of all tax abatement programs & Ensure accuracy of E-Zone reports
 - Statutory authority resides with DOR to create forms and evaluate reports. By law, LRO performs sunset reviews.
- Disclose Recipient-level jobs data
 - Violates three current state laws and one federal law
 - Jeopardizes access to Employment Department jobs data we use to evaluate KPMs and contract compliance
- Work with Legislature and other agencies to address disclosure limitations in law
 - Requires policy shift from measuring “actual” jobs created to “projected” jobs created

business
oregon®